

**UNDERGROUND INJECTION CONTROL
PERMIT APPLICATION**

**Ute Tribal # 09-01
770' FNL & 1059' FEL
Sec. 9, T5S-R3W
Duchesne County, Utah
API # 43-013-30789**

July 2015

Prepared for:
Bruce Suchomel
Groundwater Program, Mail Code 8P-W-UIC
U.S. Environmental Protection Agency
1595 Wynkoop St
Denver, CO 80202-1129

Prepared by:
Petroglyph Energy, INC.
960 Broadway Avenue, Suite 500, P.O. Box 70019
Boise, Idaho 83707
(208) 685-7600
FAX (208) 685-7605

LIST OF ATTACHMENTS

- Attachment No. 1 Area Topography Map
- Attachment No. 2 Site Map
- Attachment No. 3 Map of the A-Marker surface
- Attachment No. 4 Cross-Sections of the injection formation
- Attachment No. 5 Water Analysis
- Attachment No. 6 Completion data for all wells in the AOR
- Attachment No. 7 CBL for the UIC well
- Attachment No. 8 Open hole log for the UIC well
- Attachment No. 9 List of owners and Affidavit Notification
- Attachment No. 10 Well bore diagrams for the UIC well
- Attachment No. 11 P&A procedure
- Attachment No. 12 MIT procedure
- Attachment No. 13 Surety Bond letter

SUMMARY DOCUMENT
UIC WELL APPLICATION
Ute Tribal 09-01
API # 43-013-30789

The following document contains information provided in support of the application for the conversion of the Ute Tribal 09-01 well to an injection well in the Green River formation in the Antelope Creek Field in Duchesne County, Utah.

The Antelope Creek Field falls within the Uintah and Ouray Indian reservations and is within Indian Country; therefore, for facilities located on the reservation, only EPA-issued UIC permits are necessary for compliance with UIC regulations.

The EPA has issued an Area Permit #UT20736-00000 for the Underground Injection Control for the Antelope Creek Field. This area permit allows for additional producing wells to be converted to injection wells for enhanced recovery.

- (1) Petroglyph Energy, Inc. (Petroglyph) is the operator and only working interest owner of wells located in the Antelope creek Field, Duchesne County, Utah. Petroglyph's business address is provided below:

Petroglyph Energy, Inc.
960 Broadway Avenue, Suite 500
P.O. Box 70019
Boise, ID 83707

- (2) Enclosed as Attachment No. 1 is a topographic map of a portion of the Antelope Creek Field, identifying all wells located in this area. The legal location for the Ute Tribal 09-01 is 770' FNL & 1059' FEL NE/NE Sec. 9, T5S-R3W.
- (3) Attachment No. 2 is a map of the well. This map shows a circle with a ¼ mile radius centered on the Ute Tribal 09-01 well. The ¼ mile radius encompasses the area of review, AOR, within which Petroglyph is required to investigate all wells for mechanical integrity. The ¼ mile radius also identifies mineral ownership; all lands within the AOR are leased to Petroglyph by the Ute Tribe as indicated by yellow shading. The AOR has Ute Tribal 09-02 and Ute Tribal 09-08 well(s) located in its ¼ mile radius.

- (4) Petroglyph proposes to utilize the Ute Tribal 09-01 as an injection well for enhanced recovery in the Antelope Creek Field.
- (5) Injection Zone – The injection intervals are between 4108' and 6082' True Vertical Depth and located in the lower portion of the Green River Formation. The injection zone is confined within a 1974' section between the Green River "A" Lime marker bed and the top of the Basal Carbonate in the lower part of the formation. The injection zone is composed of lenticular calcareous sandstones interbedded with low permeable carbonates and calcareous shales. The lenticular sandstones vary in thickness from 1 to 30 feet.

Confining Zone – The overall confining strata above the injection zone consists of impermeable Green River calcareous shales and continuous beds of microcrystalline dolostone. The confining zone in the Ute Tribal 09-01 is 239 feet thick.

Attachment No. 3 is a structure map of the A-Marker surface.

Attachment No. 4 is a cross-section of the injection interval and confining zone.

- (6) Enclosed as Attachment No. 5 are standard analyses of produced water from three batteries that currently serve as central handling facilities for all project producing wells. The analysis of the Green River formation water from the Ute Tribal 18-08 Satellite Battery is 12805 mg/L of total dissolved solids (TDS), Ute Tribal 21-11 Satellite Battery is 15659 mg/L TDS, and Ute Tribal 34-12-D3 Satellite Battery is 14590 mg/L TDS.

Injectate in the field is a mixture of produced water and fresh make-up water. The nearest injection well is the Ute Tribal 03-14, the most recent analysis of the water being injected into the Green River formation at this location is 6393 mg/L TDS. This analysis is also included in Attachment No. 5.

- (7) A summary of completion data from the Ute Tribal 09-01 and offset wells in the AOR are included in Attachment No. 6
- (8) The cement bond log is included in Attachment No. 7.
- (9) The open hole log for the Ute Tribal 09-01 is included in Attachment No. 8.

- (10) The Antelope Creek Field is operated under a Cooperative Plan of Development between the Ute Tribe and Petroglyph Energy. At the Ute Tribal 09-01 location, all mineral owners, surface owners and operators located within the AOR ¼ mile radius have been notified of the submitted EPA application to convert to injection. Attachment No. 9 is the Affidavit of Notification to all owners.

- (11) Petroglyph requests a maximum surface injection pressure of **1900psi**. The EPA Area Permit No. UT20736-00000 uses the formula:

$$P_m = (0.88\text{psi}/\text{ft} - 0.43\text{psi}/\text{ft}(S_g)) D$$

Where:

P_m = Maximum surface injection pressure

0.88psi/ft = Fracture gradient

D = Top perforation depth

0.43psi/ft = Hydrostatic pressure/hydraulic head

S_g = Specific gravity of injection fluid

For the Ute Tribal 09-01:

$$\mathbf{1932\text{psi} = (0.88\text{psi}/\text{ft} - 0.43(1.00)) 4293\text{ft}}$$

EPA Area Permit No. 20736-00000 further caps maximum surface pressure at 1900psi.

- (12) Three wellbore diagrams for the Ute Tribal 09-01 are in Attachment No. 10. One diagram is for production, one for injection, and one for Plug & Abandonment (P&A).

- (13) The P&A procedure for this well is shown in Attachment No. 11.

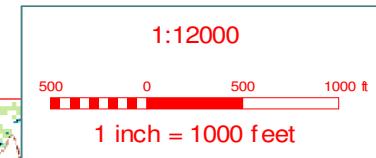
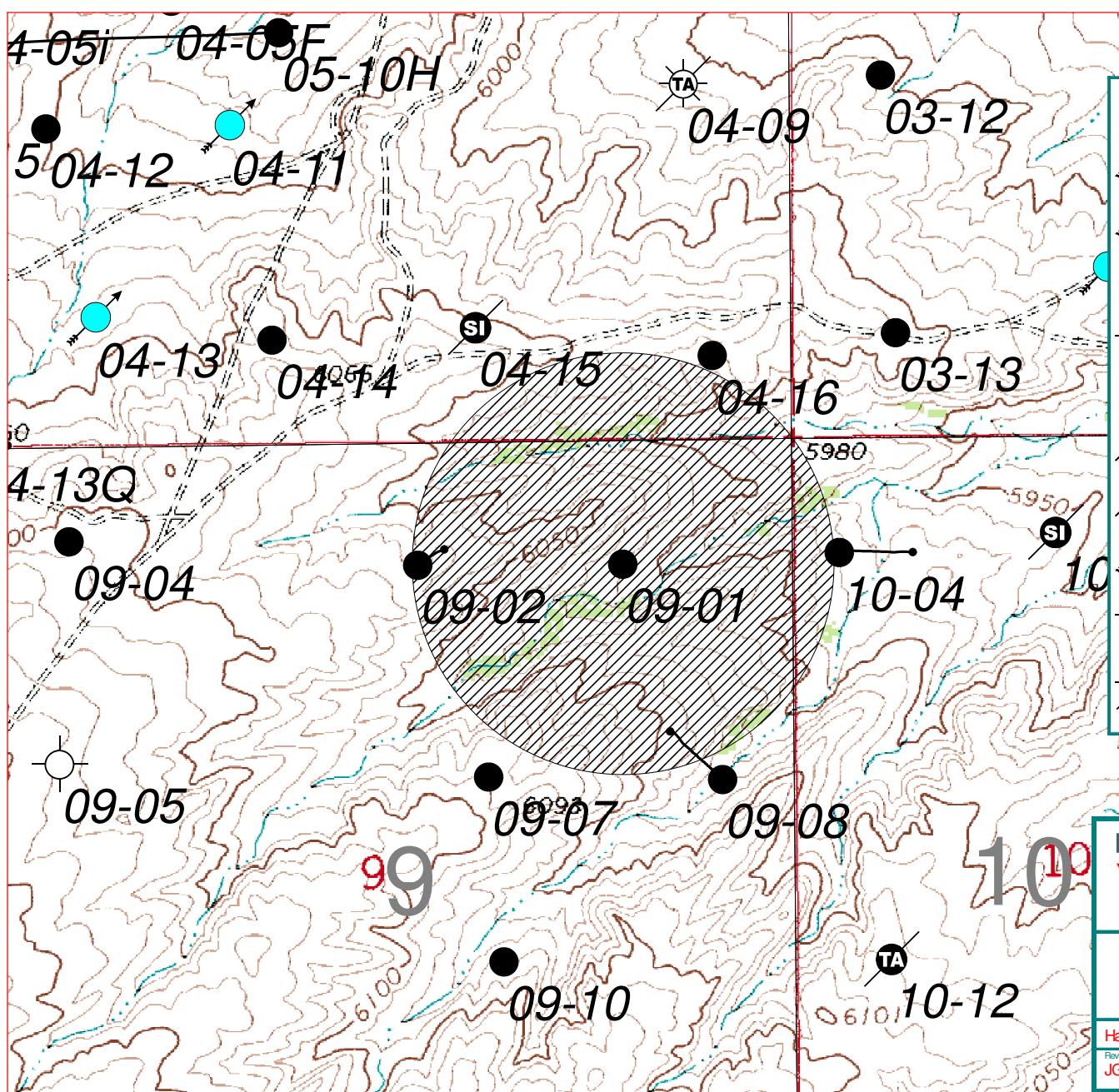
- (14) Once the draft permit is issued, Petroglyph will conduct a Mechanical Integrity Test and a static bottom-hole pressure test. The MIT procedure is contained in Attachment No. 12. The conversion work will be satisfactorily completed and submitted to the EPA on Form 7520-12. A wellbore schematic will be included with this form.

- (15) Petroglyph will give proof of financial responsibility by posting a surety bond for the UIC well prior to final permit approval. A copy of this letter is contained in Attachment No. 13.
- (16) Petroglyph will install various gauges on the well so that the injection pressure and tubing/casing annulus pressure can be monitored. The well will be equipped with a flow meter with a cumulative volume recorder.

ATTACHMENT NO. 1

AREA MAP

ATTACHMENT NO. 1:
AREA MAP



- Producing Oil Well
- Injection Well
- Injection Well,
waiting on water
- PTPI
- D & A
- Waiting on Completion
- TA
- SI
- Injector Shut In
- P & A
- Shut In Gas Well

	PETROGLYPH	ANTELOPE CREEK
		DUCHESNE COUNTY, UTAH
Ute Tribal 09-01 Area Map		
Hack 9-15-06		
Revised by: JG 4/23/15	Petroglyph Energy, Inc., 960 Broadway Ave. Suite 500 PO Box 70019 Boise, ID 83707	WPE-GEO.Utah Regional CTR 09-01 area map.gnp

ATTACHMENT NO. 2

SITE MAP

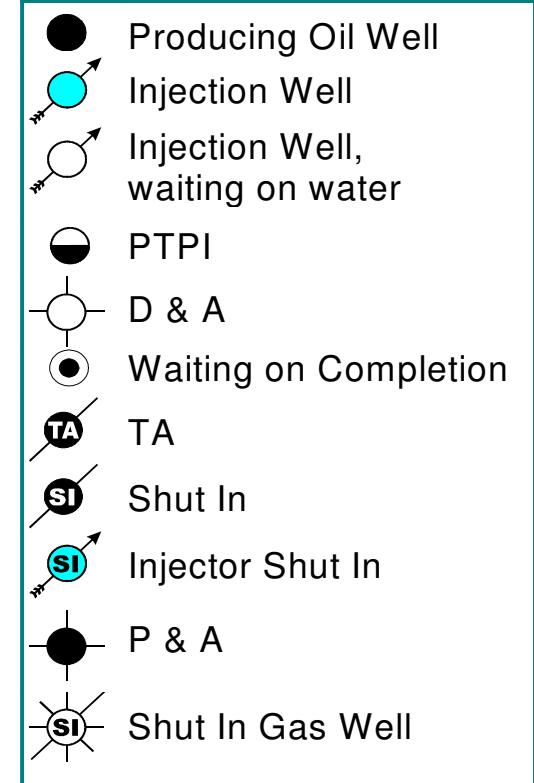
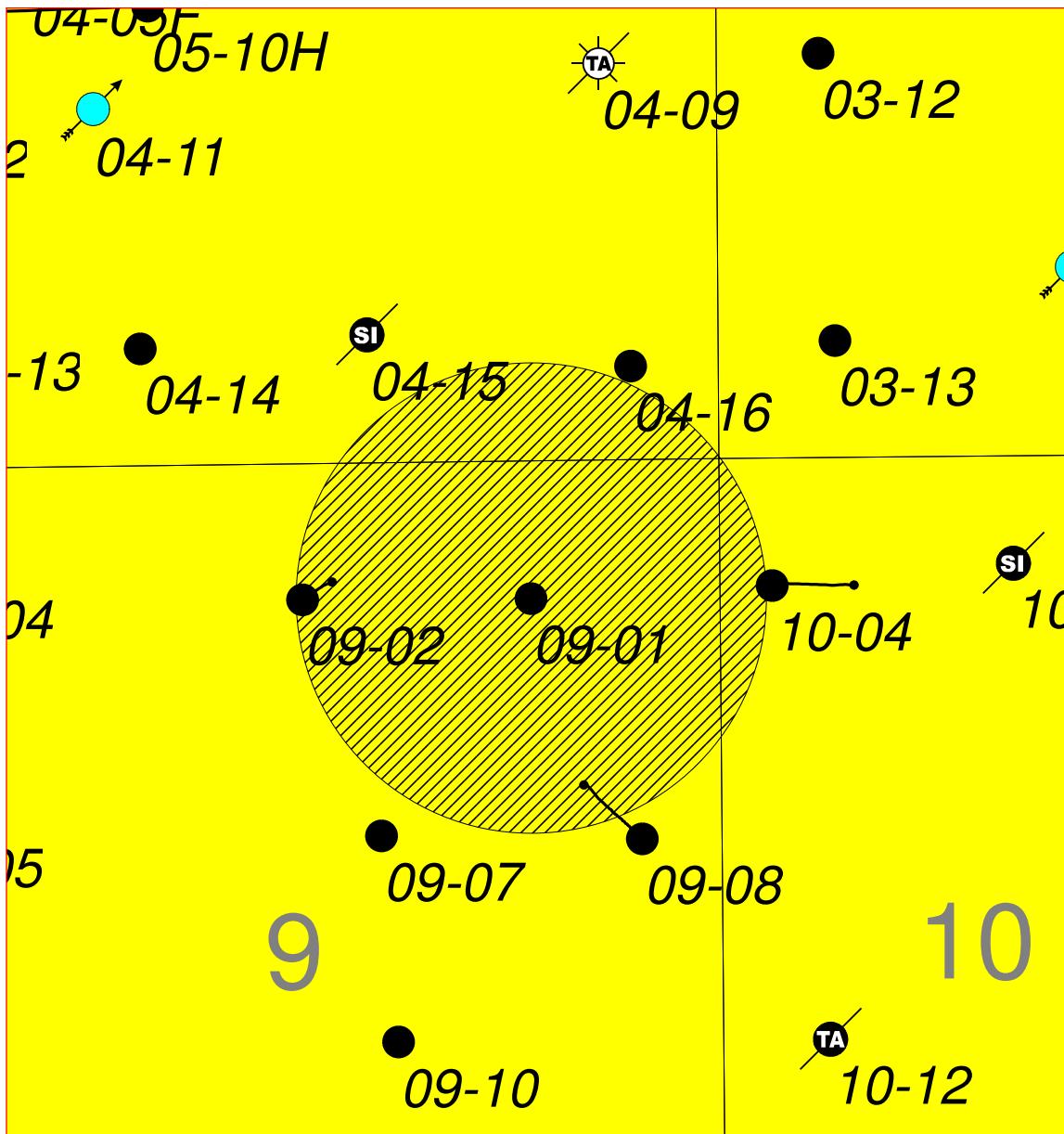
RADIUS MAP OF ADJACENT WELLS

ATTACHMENT NO. 2:
SITE MAP

1:12000

500 0 500 1000 ft

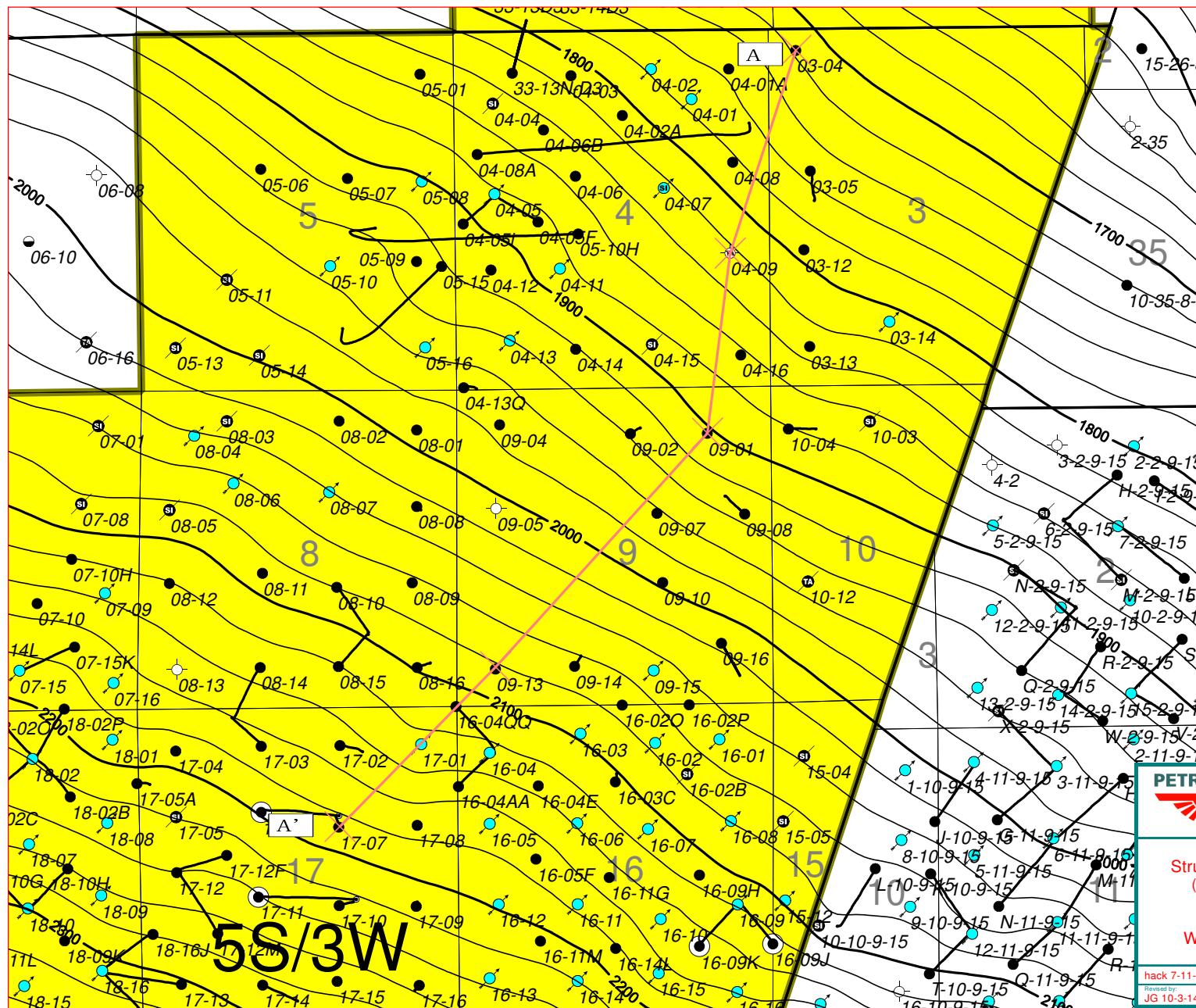
1 inch = 1000 feet



ATTACHMENT NO. 3

MAP OF THE A-LIME MARKER SURFACE

ATTACHMENT NO. 3:
Map of the "A" Lime Marker



1:30000
1000 0 1000 2000 ft

1 inch = 2500 f feet

- Producing Oil Well
- Injection Well
- Injection Well, waiting on water
- PTPI
- D & A
- Waiting on Completion
- TA
- SI
- Injector Shut In
- P & A
- Shut In Gas Well



ANTELOPE CREEK

DUCHESNE COUNTY, UTAH

Structure Map of the "A" Lime Marker
(approximate top of Injection Zone)
in the Vicinity of the
Ute Tribal 09-01
With Line of Cross Section A to A'

hack 7-11-06
Revised by:
JG 10-3-14

Petroglyph Energy, Inc., 555 S. Cole Rd., Boise, ID 83709

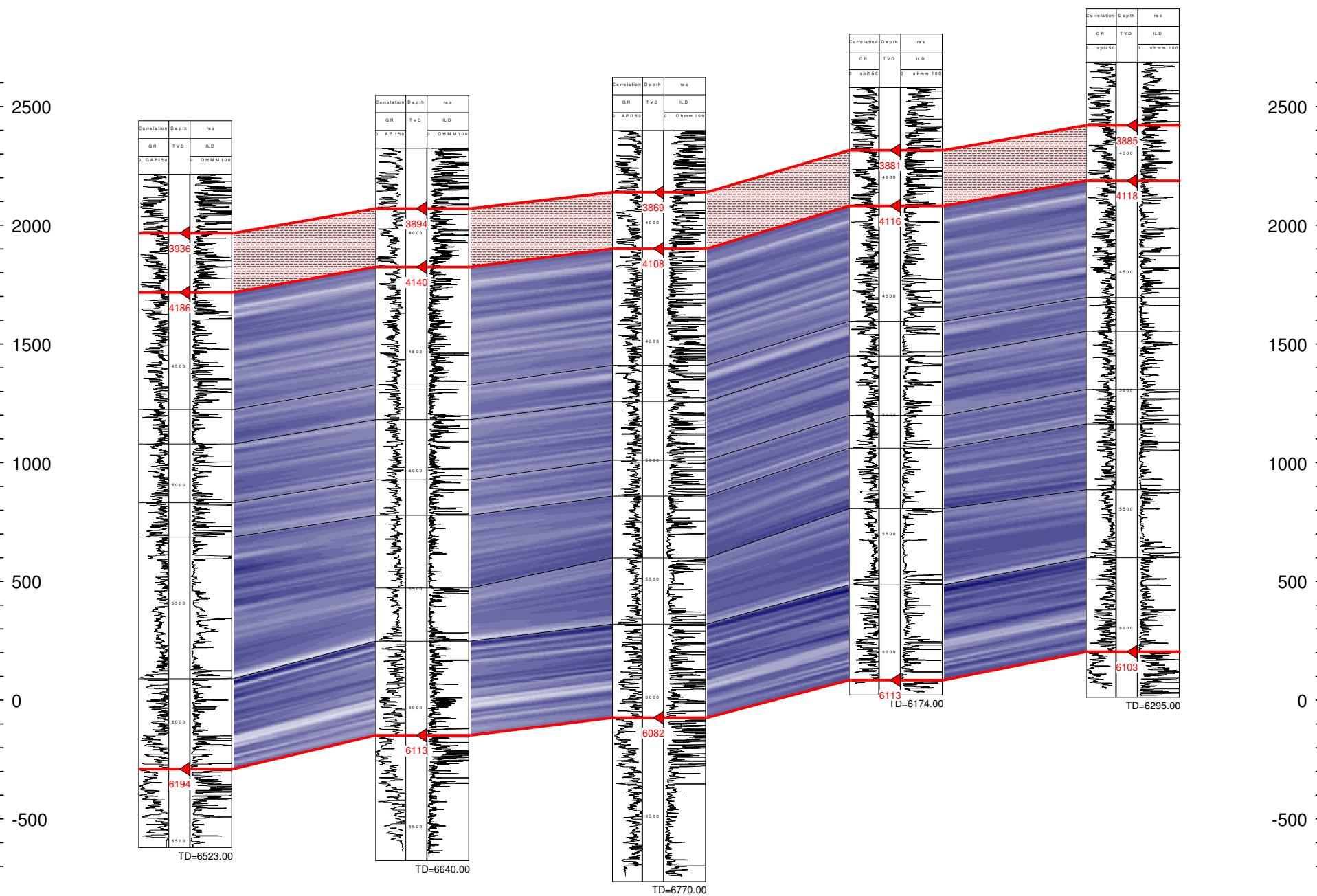
\SERV\Geo\Utah\Regional\CTI\09-01\structure map.gnp

ATTACHMENT NO. 4

CROSS SECTIONS OF THE INJECTION FORMATION

Structural Cross Section A to A' in the Vicinity of Ute Tribal 09-01

43013317360000 3558 ft 43013316880000 3026 ft 43013307890000 5262 ft 43013511990000 3718 ft 43013515260000
 PETROGLYPH OPERATING COMPANY INC
 Ute Tribal 03-04 UTE TRIBAL 09-01 UTE TRIBAL 09-13 UTE TRIBAL 17-07
 360 FNL/460 FWL 2227 FSL 660 FEL 650 FSL 657 FWL
 TWP: 5 S - Range: 3 W - Sec. 3 TWP: 5 S - Range: 3 W - Sec. 4 TWP: 5 S - Range: 3 W - Sec. 9 TWP: 5 S - Range: 3 W - Sec. 9
 TWP: 5 S - Range: 3 W - Sec. 3 TWP: 5 S - Range: 3 W - Sec. 4 TWP: 5 S - Range: 3 W - Sec. 9 TWP: 5 S - Range: 3 W - Sec. 9



ATTACHMENT NO. 5

WATER ANALYSIS

Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS
 Well Name: UTE TRIBAL 18-08 SATELLITE, DUCHESN
 Sample Point: PLANT DISCHARGE COMPLETE
 Sample Date: 4/21/2015
 Sample ID: WA-307075

Sales Rep: James Patry
 Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	4/21/2015
System Temperature 1 (°F):	60.00
System Pressure 1 (psig):	14.70
System Temperature 2 (°F):	180.00
System Pressure 2 (psig):	2000.00
Calculated Density (g/ml):	1.0061
pH:	8.50
Calculated TDS (mg/L):	12805.08
CO ₂ in Gas (%):	
Dissolved CO ₂ (mg/L):	0.00
H ₂ S in Gas (%):	
H ₂ S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	mg/L	Anions	mg/L
Sodium (Na):	4541.75	Chloride (Cl):	6000.00
Potassium (K):	41.78	Sulfate (SO ₄):	163.00
Magnesium (Mg):	28.63	Bicarbonate (HCO ₃):	1952.00
Calcium (Ca):	67.44	Carbonate (CO ₃):	
Strontium (Sr):	5.41	Acetic Acid (CH ₃ COO):	
Barium (Ba):	0.90	Propionic Acid (C ₂ H ₅ COO):	
Iron (Fe):	2.74	Butanoic Acid (C ₃ H ₇ COO):	
Zinc (Zn):	1.29	Isobutyric Acid ((CH ₃) ₂ CHCOO):	
Lead (Pb):	0.05	Fluoride (F):	
Ammonia NH ₃ :		Bromine (Br):	
Manganese (Mn):	0.09	Silica (SiO ₂):	

Notes:

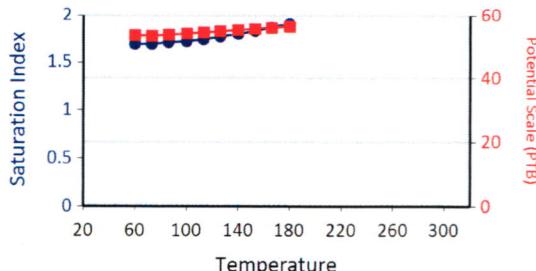
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	1.91	56.41	0.09	0.09	0.00	0.00	2.59	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	1.87	56.05	0.13	0.14	0.00	0.00	2.54	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	1.83	55.66	0.19	0.19	0.00	0.00	2.49	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	1.80	55.27	0.26	0.24	0.00	0.00	2.44	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	1.77	54.86	0.33	0.29	0.00	0.00	2.38	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	1.74	54.46	0.42	0.33	0.00	0.00	2.32	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	1.72	54.08	0.52	0.38	0.00	0.00	2.26	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	1.71	53.72	0.64	0.41	0.00	0.00	2.20	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	1.69	53.39	0.77	0.45	0.00	0.00	2.14	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	1.69	53.56	0.92	0.47	0.00	0.00	2.08	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

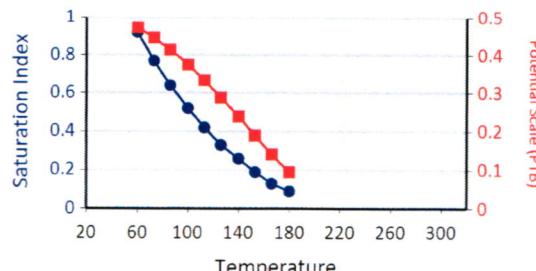
Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	0.00	0.00	0.00	0.00	0.00	0.00	2.20	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	0.00	0.00	0.00	0.00	0.00	0.00	2.09	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	0.00	0.00	0.00	0.00	0.00	0.00	1.96	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	0.00	0.00	0.00	0.00	0.00	0.00	1.83	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	0.00	0.00	0.00	0.00	0.00	0.00	1.69	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	0.00	0.00	0.00	0.00	0.00	0.00	1.53	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	0.00	0.00	0.00	0.00	0.00	0.00	1.19	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

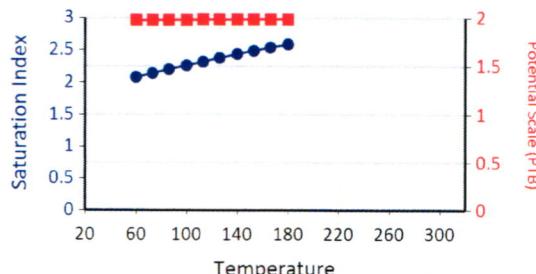
Calcium Carbonate



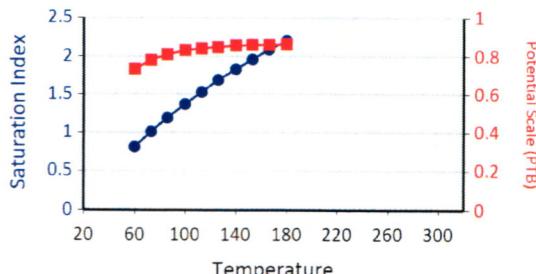
Barium Sulfate



Iron Carbonate



Zinc Carbonate



Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS
 Well Name: UTE TRIBAL 21-11 SATELLITE, DUCHESNE
 Sample Point: PLANT DISCHARGE COMPLETE
 Sample Date: 4/21/2015
 Sample ID: WA-307071

Sales Rep: James Patry
 Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics											
Test Date:	4/21/2015	Cations					mg/L		Anions				
System Temperature 1 (°F):	60.00	Sodium (Na):		5585.76	CChloride (Cl):				7000.00				
System Pressure 1 (psig):	14.70	Potassium (K):		55.43	Sulfate (SO4):				277.00				
System Temperature 2 (°F):	180.00	Magnesium (Mg):		10.62	Bicarbonate (HCO3):				2684.00				
System Pressure 2 (psig):	2000.00	Calcium (Ca):		30.52	Carbonate (CO3):								
Calculated Density (g/ml):	1.0081	Srtrontium (Sr):		6.47	Acetic Acid (CH3COO):								
pH:	8.70	Barium (Ba):		1.02	Propionic Acid (C2H5COO):								
Calculated TDS (mg/L):	15659.01	Iron (Fe):		1.09	Butanoic Acid (C3H7COO):								
CO2 in Gas (%):		Zinc (Zn):		6.88	Isobutyric Acid ((CH3)2CHCOO):								
Dissolved CO2 (mg/L):	0.00	Lead (Pb):		0.08	Fluoride (F):								
H2S in Gas (%):		Ammonia NH3:			Bromine (Br):								
H2S in Water (mg/L):	35.00	Manganese (Mn):		0.14	Silica (SiO2):								

Notes:

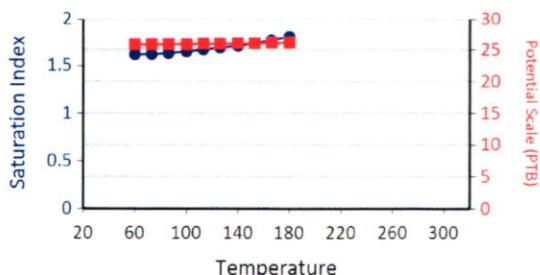
(PTB = Pounds per Thousand Barrels)

Calcium Carbonate				Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4-2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	1.81	26.18	0.28	0.29	3.60	0.60	2.44	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.37	3.59
166	1779	1.77	26.13	0.33	0.32	3.61	0.60	2.40	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.52	3.59
153	1558	1.74	26.09	0.39	0.36	3.63	0.60	2.35	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.68	3.59
140	1338	1.71	26.05	0.45	0.39	3.67	0.60	2.30	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.86	3.59
126	1117	1.69	26.00	0.53	0.43	3.72	0.60	2.25	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.05	3.59
113	897	1.67	25.97	0.62	0.46	3.79	0.60	2.20	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.27	3.59
100	676	1.65	25.93	0.72	0.49	3.87	0.60	2.14	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.50	3.59
86	455	1.63	25.91	0.84	0.52	3.97	0.60	2.08	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.76	3.59
73	235	1.62	25.88	0.97	0.54	4.09	0.60	2.02	0.79	0.00	0.00	0.00	0.00	0.00	0.00	13.04	3.59
60	14	1.62	25.87	1.12	0.56	4.23	0.60	1.96	0.79	0.00	0.00	0.00	0.00	0.00	0.00	13.34	3.59

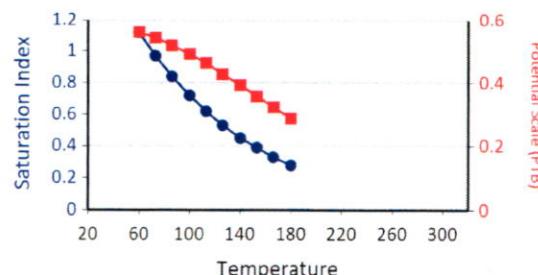
Hemihydrate CaSO4·0.5H2O				Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	0.00	0.00	0.00	0.00	0.00	0.00	3.15	4.62	10.72	0.03	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	0.00	0.00	0.00	0.00	0.00	0.00	3.04	4.62	10.97	0.03	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	0.00	0.00	0.00	0.00	0.00	0.00	2.92	4.62	11.24	0.03	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	0.00	0.00	0.00	0.00	0.00	0.00	2.79	4.62	11.54	0.03	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	0.00	0.00	0.00	0.00	0.00	0.00	2.65	4.62	11.86	0.03	0.00	0.00	0.00	0.00	0.00	0.00
113	897	0.00	0.00	0.00	0.00	0.00	0.00	2.50	4.61	12.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00
100	676	0.00	0.00	0.00	0.00	0.00	0.00	2.34	4.61	12.60	0.03	0.00	0.00	0.00	0.00	0.00	0.00
86	455	0.00	0.00	0.00	0.00	0.00	0.00	2.17	4.60	13.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00
73	235	0.00	0.00	0.00	0.00	0.00	0.00	1.99	4.58	13.46	0.03	0.00	0.00	0.00	0.00	0.00	0.00
60	14	0.00	0.00	0.00	0.00	0.00	0.00	1.79	4.55	13.95	0.03	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

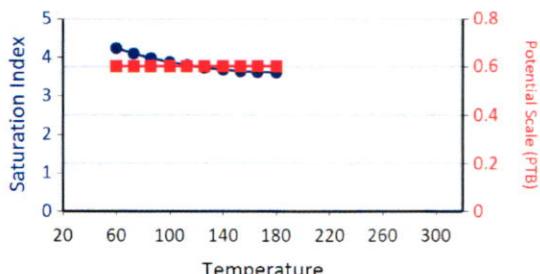
Calcium Carbonate



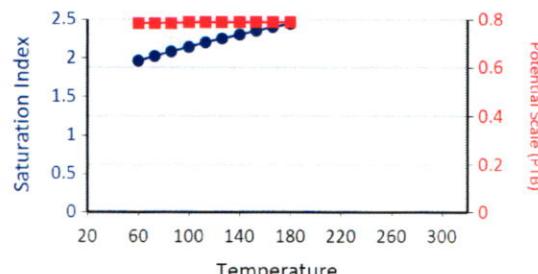
Barium Sulfate



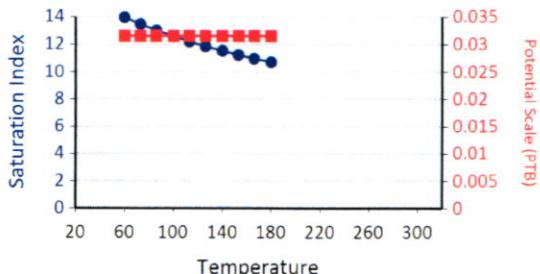
Iron Sulfide



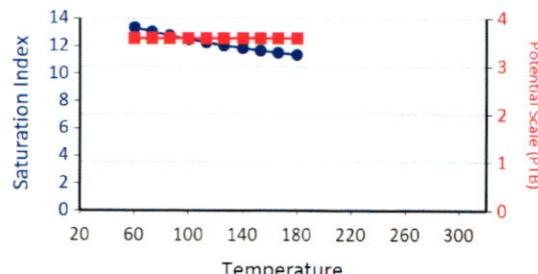
Iron Carbonate



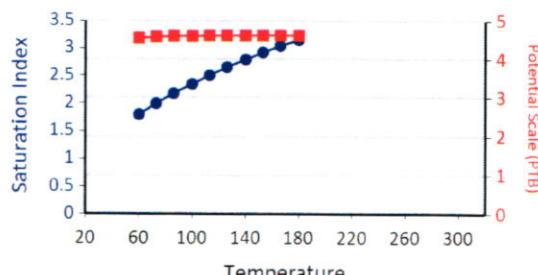
Lead Sulfide



Zinc Sulfide



Zinc Carbonate



Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS
 Well Name: UTE TRIBAL 34-12D3 SATELLITE, DUCHE
 Sample Point: PLANT DISCHARGE
 Sample Date: 4/21/2015
 Sample ID: WA-307067

Sales Rep: James Patry
 Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	4/21/2015
System Temperature 1 (°F):	60.00
System Pressure 1 (psig):	14.70
System Temperature 2 (°F):	180.00
System Pressure 2 (psig):	2000.00
Calculated Density (g/ml):	1.0073
pH:	8.50
Calculated TDS (mg/L):	14589.98
CO2 in Gas (%):	
Dissolved CO2 (mg/L):	0.00
H2S in Gas (%):	
H2S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	mg/L	Anions	mg/L
Sodium (Na):	5277.36	Chloride (Cl):	7000.00
Potassium (K):	65.03	Sulfate (SO4):	0.00
Magnesium (Mg):	7.80	Bicarbonate (HCO3):	2196.00
Calcium (Ca):	24.60	Carbonate (CO3):	
Strontium (Sr):	5.20	Acetic Acid (CH3COO):	
Barium (Ba):	12.37	Propionic Acid (C2H5COO):	
Iron (Fe):	0.34	Butanoic Acid (C3H7COO):	
Zinc (Zn):	1.16	Isobutyric Acid ((CH3)2CHCOO):	
Lead (Pb):	0.04	Fluoride (F):	
Ammonia NH3:		Bromine (Br):	
Manganese (Mn):	0.08	Silica (SiO2):	

Notes:

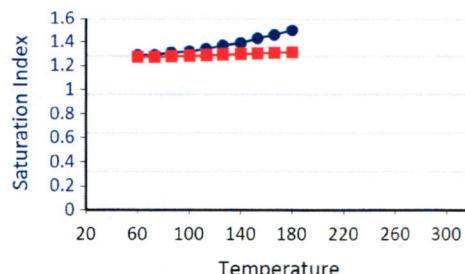
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	1.50	20.58	0.00	0.00	0.00	0.00	1.72	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	1.46	20.48	0.00	0.00	0.00	0.00	1.67	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	1.43	20.39	0.00	0.00	0.00	0.00	1.63	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	1.39	20.30	0.00	0.00	0.00	0.00	1.57	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	1.37	20.21	0.00	0.00	0.00	0.00	1.52	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	1.34	20.13	0.00	0.00	0.00	0.00	1.46	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	1.32	20.05	0.00	0.00	0.00	0.00	1.40	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	1.31	19.99	0.00	0.00	0.00	0.00	1.34	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	1.29	19.93	0.00	0.00	0.00	0.00	1.28	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	1.29	19.93	0.00	0.00	0.00	0.00	1.22	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

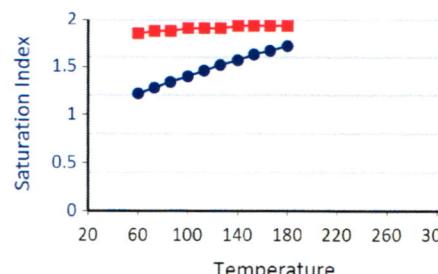
Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	0.00	0.00	0.00	0.00	0.00	0.00	2.16	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	0.00	0.00	0.00	0.00	0.00	0.00	2.05	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	0.00	0.00	0.00	0.00	0.00	0.00	1.93	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	0.00	0.00	0.00	0.00	0.00	0.00	1.34	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	0.00	0.00	0.00	0.00	0.00	0.79	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

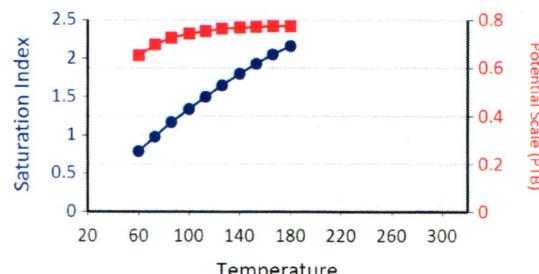
Calcium Carbonate



Iron Carbonate



Zinc Carbonate



Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS

Well Name: UTE TRIBAL 03-14 INJ, DUCHESNE

Sample Point: WELLHEAD

Sample Date: 1/7/2015

Sample ID: WA-297463

Sales Rep: James Patry

Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics									
		Cations				mg/L		Anions			
Test Date:	1/14/2015	Sodium (Na):				1924.68		Chloride (Cl):			3000.00
System Temperature 1 (°F):	160	Potassium (K):				31.43		Sulfate (SO4):			166.00
System Pressure 1 (psig):	1300	Magnesium (Mg):				47.40		Bicarbonate (HCO3):			1098.00
System Temperature 2 (°F):	80	Calcium (Ca):				83.24		Carbonate (CO3):			
System Pressure 2 (psig):	15	Strontium (Sr):				4.12		Acetic Acid (CH3COO):			
Calculated Density (g/ml):	1.0016	Barium (Ba):				3.59		Propionic Acid (C2H5COO):			
pH:	8.30	Iron (Fe):				7.03		Butanoic Acid (C3H7COO):			
Calculated TDS (mg/L):	6392.90	Zinc (Zn):				5.16		Isobutyric Acid ((CH3)2CHCOO):			
CO2 in Gas (%):		Lead (Pb):				0.00		Fluoride (F):			
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:						Bromine (Br):			
H2S in Gas (%):		Manganese (Mn):				0.09		Silica (SiO2):			22.16
H2S in Water (mg/L):	10.00										

Notes:

B=3.55 Al=0 Li=1.1

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	1.50	51.14	1.59	2.08	3.98	3.88	2.26	5.08	0.00	0.00	0.00	0.00	0.00	0.00	12.03	2.70
88.00	157.00	1.49	49.38	1.51	2.07	3.89	3.88	2.28	5.08	0.00	0.00	0.00	0.00	0.00	0.00	11.84	2.70
97.00	300.00	1.51	50.35	1.43	2.06	3.83	3.88	2.33	5.08	0.00	0.00	0.00	0.00	0.00	0.00	11.68	2.70
106.00	443.00	1.53	51.38	1.36	2.04	3.78	3.88	2.38	5.09	0.00	0.00	0.00	0.00	0.00	0.00	11.52	2.70
115.00	585.00	1.55	52.47	1.30	2.03	3.74	3.88	2.42	5.09	0.00	0.00	0.00	0.00	0.00	0.00	11.38	2.70
124.00	728.00	1.57	53.61	1.24	2.02	3.70	3.88	2.47	5.09	0.00	0.00	0.00	0.00	0.00	0.00	11.25	2.70
133.00	871.00	1.59	54.78	1.19	2.00	3.67	3.88	2.51	5.09	0.00	0.00	0.00	0.00	0.00	0.00	11.12	2.70
142.00	1014.00	1.62	55.97	1.14	1.98	3.65	3.88	2.56	5.10	0.00	0.00	0.00	0.00	0.00	0.00	11.01	2.70
151.00	1157.00	1.65	57.17	1.10	1.97	3.64	3.88	2.60	5.10	0.00	0.00	0.00	0.00	0.00	0.00	10.90	2.70
160.00	1300.00	1.68	58.37	1.06	1.95	3.63	3.88	2.64	5.10	0.00	0.00	0.00	0.00	0.00	0.00	10.80	2.70

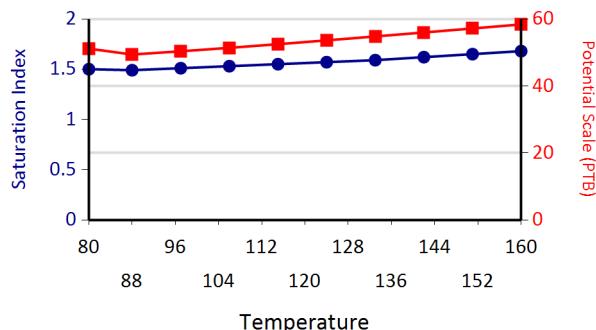
		Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	3.34	0.00	0.00	1.88	8.13	0.72	3.36	7.97	5.44
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	3.36	0.00	0.00	2.11	8.59	0.82	3.62	8.04	5.44
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70	3.39	0.00	0.00	2.48	10.18	1.02	4.45	8.25	5.44
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	1.81	3.41	0.00	0.00	2.87	11.86	1.23	5.30	8.48	5.45
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	3.42	0.00	0.00	3.26	13.61	1.44	6.17	8.72	5.45
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.43	0.00	0.00	3.65	15.44	1.66	7.04	8.97	5.45
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	3.44	0.00	0.00	4.04	17.29	1.88	7.92	9.23	5.46
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.45	0.00	0.00	4.44	19.14	2.10	8.77	9.49	5.46
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33	3.45	0.00	0.00	4.84	20.89	2.32	9.59	9.75	5.46
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42	3.46	0.00	0.00	5.24	22.48	2.54	10.36	10.03	5.46

Water Analysis Report

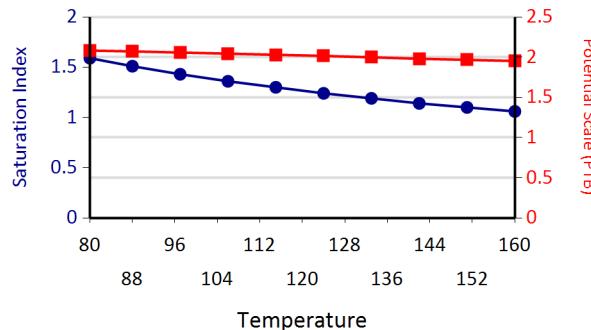
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

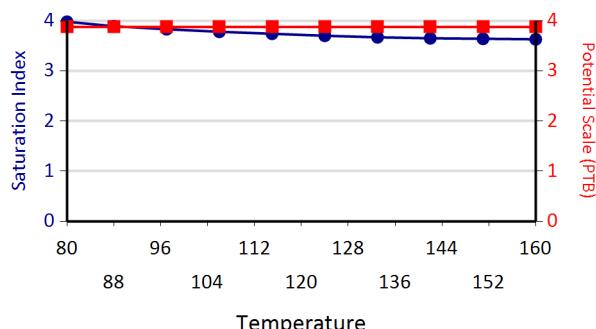
Calcium Carbonate



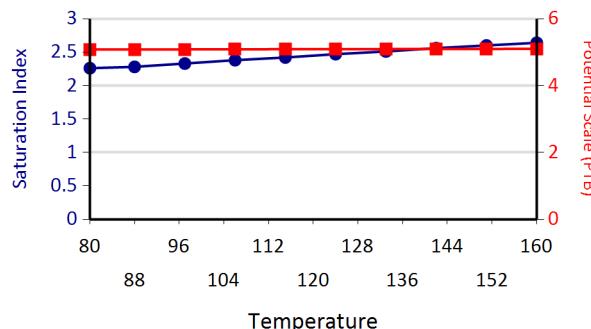
Barium Sulfate



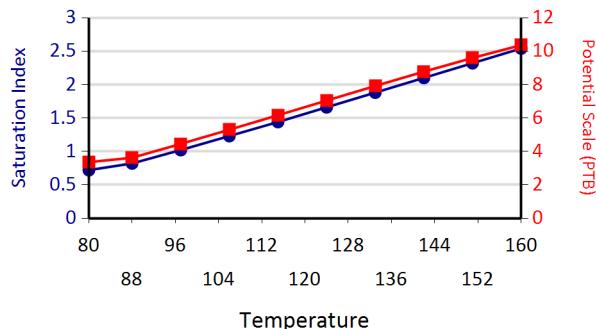
Iron Sulfide



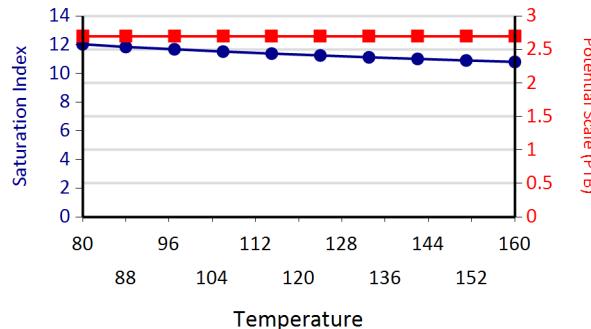
Iron Carbonate



Ca Mg Silicate

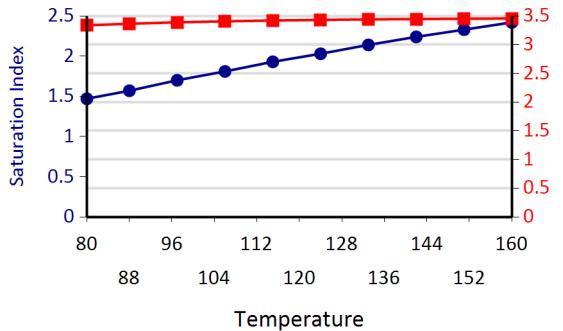


Zinc Sulfide

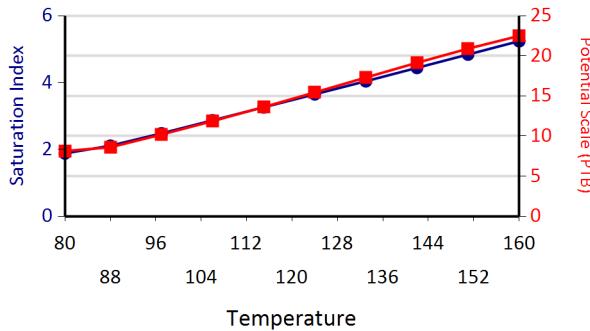


Water Analysis Report

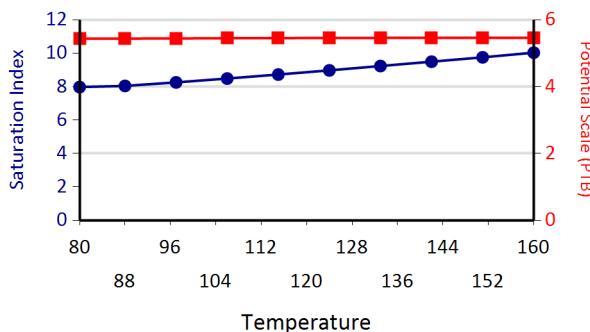
Zinc Carbonate



Mg Silicate



Fe Silicate



ATTACHMENT NO. 6

COMPLETION DATA FOR ALL WELLS IN THE AOR

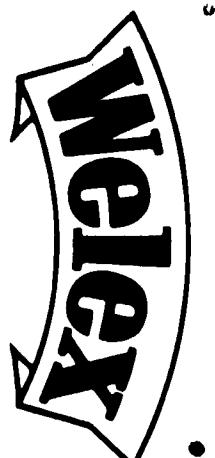
Well Completion Data

Ute Tribal 09-01

Well	Surface Casing				Production Casing			
	Size (inches)	Depth (ft KB)	Cement Amount (sx)	Cement Top	Size (inches)	Depth (ft KB)	Cement Amount (sx)	Estimated Cement Top
Ute Tribal 09-01	8-5/8	406	350	surface	5-1/2	6783	1120	2200
Ute Tribal 09-02	8-5/8	525	350	surface	5-1/2	6485	1000	surface
Ute Tribal 09-08	8-5/8	515	300	surface	5-1/2	6490	855	surface

ATTACHMENT NO. 7

CBL FOR THE UIC WELL



MICRO-SEISMOGRAM[®] LOG-CASED HOLE

COMPANY		COORS ENERGY	
WELL	JTE TRIBAL #2-9 (9-1)	FIELD	
FIELD		COUNTY	DUCHESSNE
WELL	WILDOAT	STATE	UTAH
FIELD	DUCHESSNE	Other Services	
County			
Sec.	9	Twp.	5S
Run No.	ONE	Range	3N
Date & Time Survey	9-19-83	Elev.	6008'
Type Cementing Operation	TWO STAGE	Elev.	K.B. 6020'
Depth Driller	6787'	D.F.	
Depth Wellex	6783'	G.L.	6008'
Logged Interval	6776' to 2000'		
Casing Driller	5 1/2" TD		
Float Collar—D.V. Tool			
Squeeze Depth	---		
Amount & Type Cement	---		
Amount & Type Admix	---		
Type Fluid in Hole	KCL		
Fluid Level	FULL		
Salinity PPM Cl	---		
Weight lb/gal—Vis.	---		
Approx. Logged Cem. Top	2210'		
Calculated Cement Top	---		
Max. Hole Temperature	---		F
Tool No.	102A 8 307		
Spacing Recorded	4'		
Equipment—Location	2887		
Recorded by			
Witnessed by			

Hold Here

BORE HOLE RECORD			CASING RECORD				
Bit Size	From	To	Csg. Size	Wt.	From	To	Centralized Interval
			5 1/2"	15.5#	SURF.	6783'	
							Scratched Interval
							Open Perforations

Service Ticket No. 11263 Remarks _____

GAMMA

API Gamma Ray Units

0	200
200	400

DEPTH

AMPLITUDE

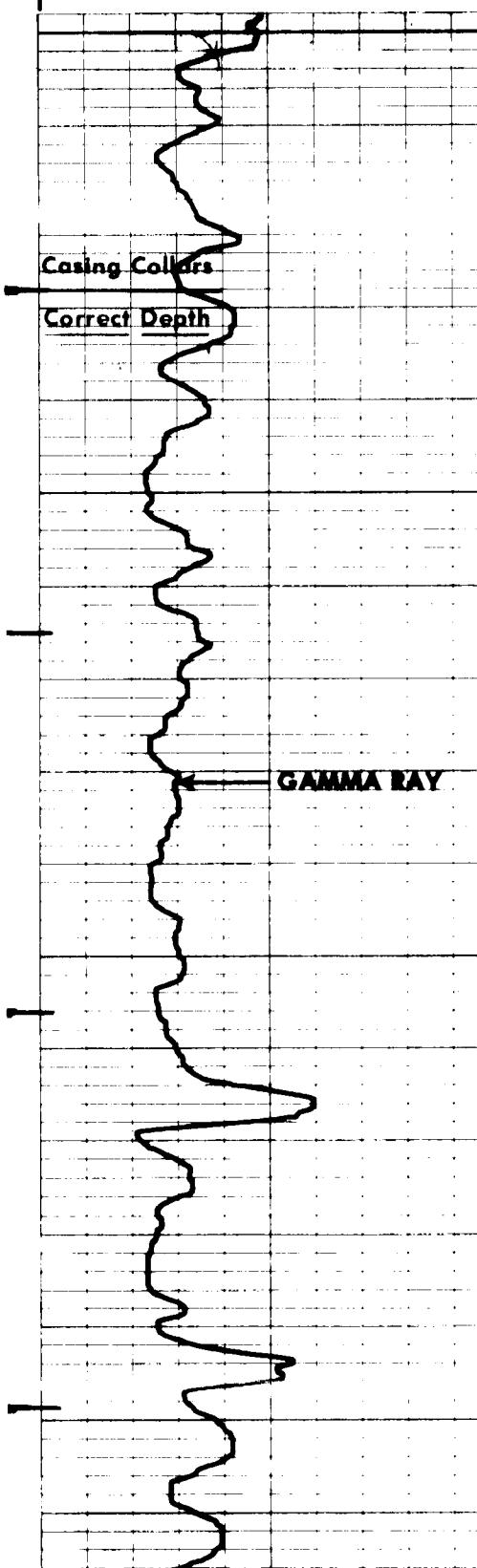
PIPE

FORMATION

MICRO-SEISMOGRAM® LOG

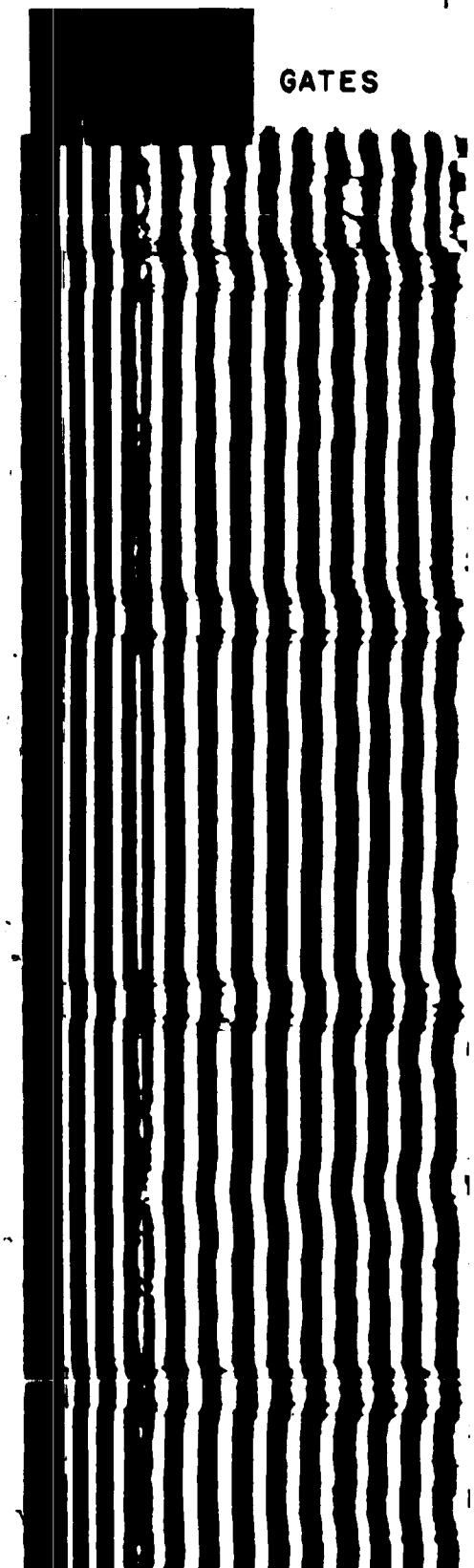
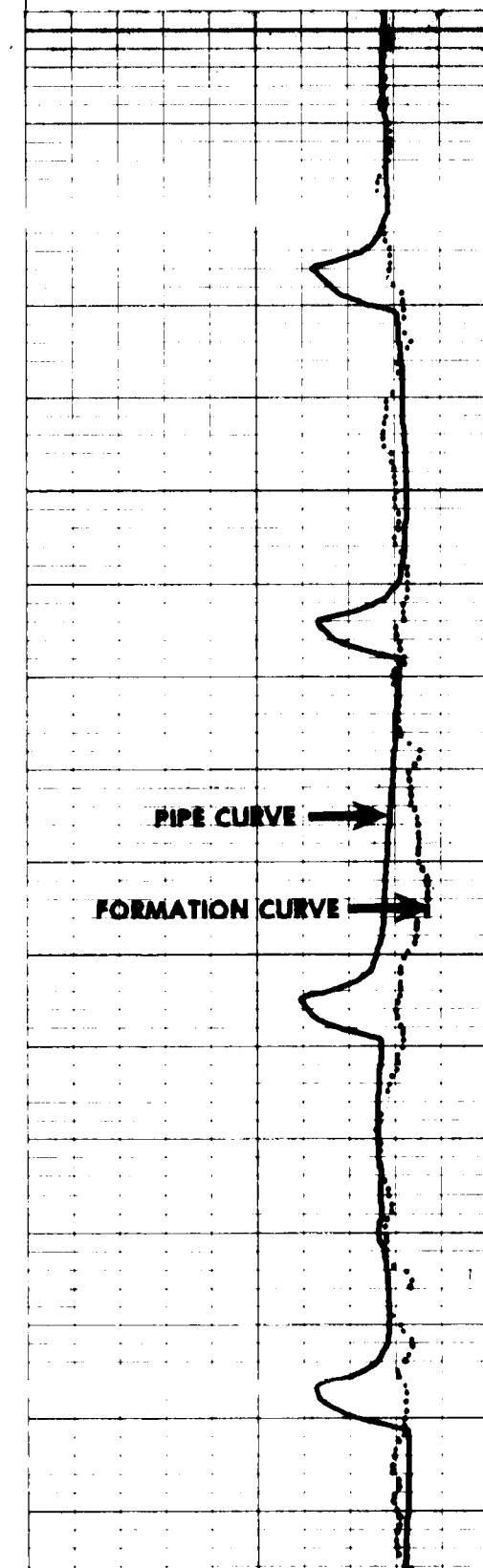
200 u sec.

1200



2000

2100

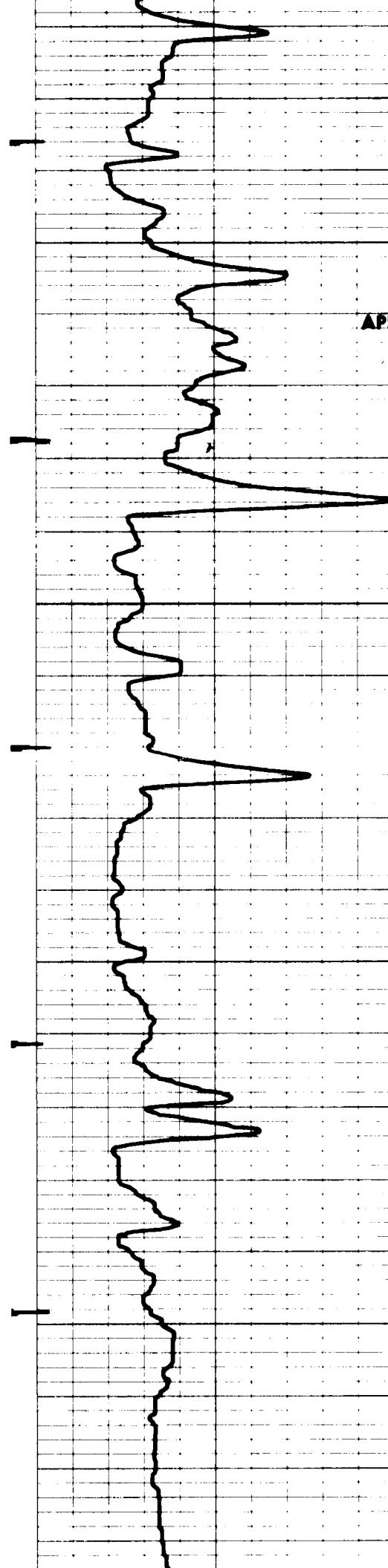
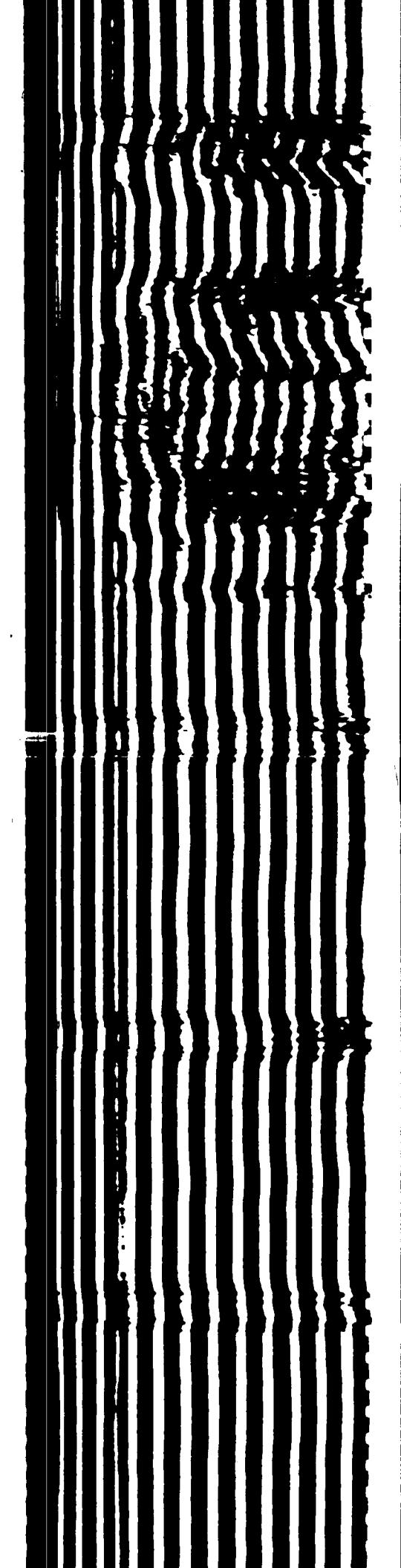


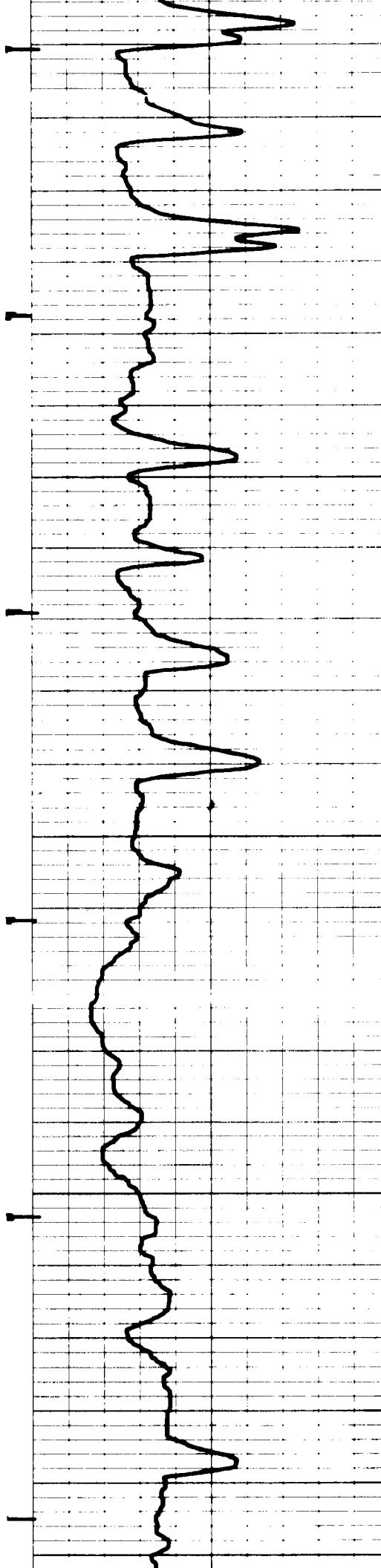
GATES

2200

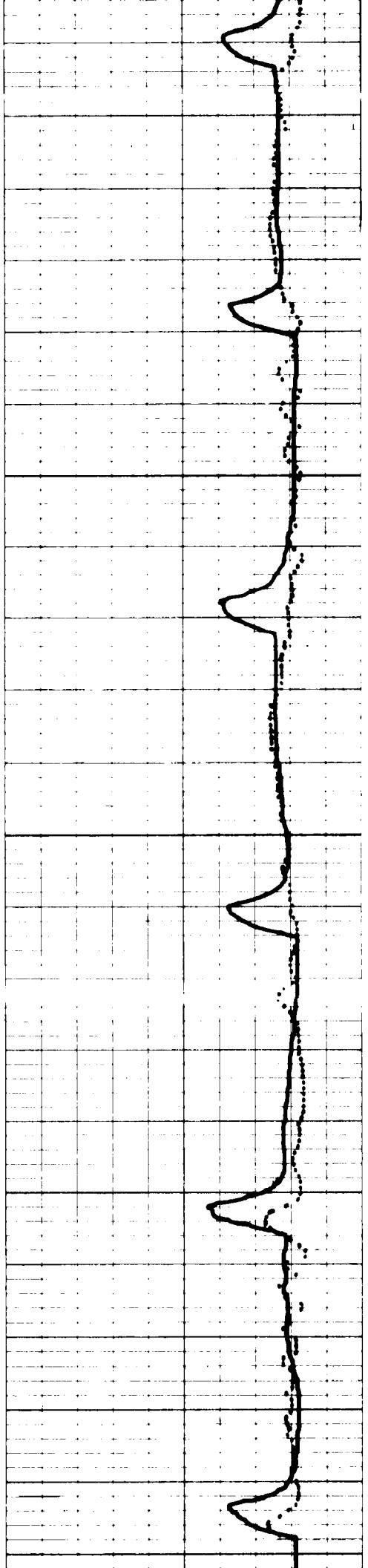
APPROXIMATE CEMENT TOP

2300

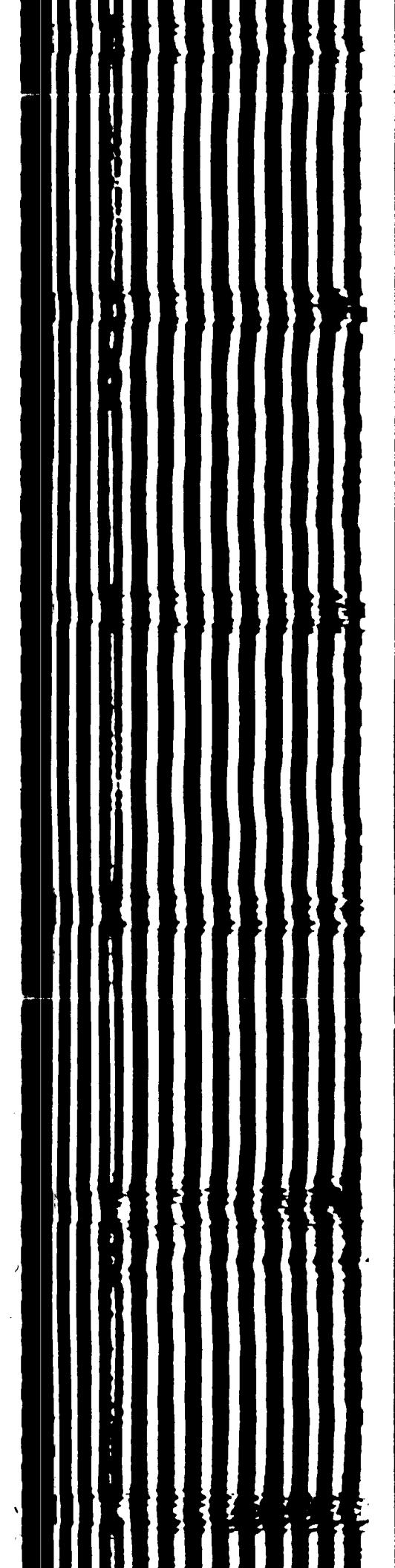




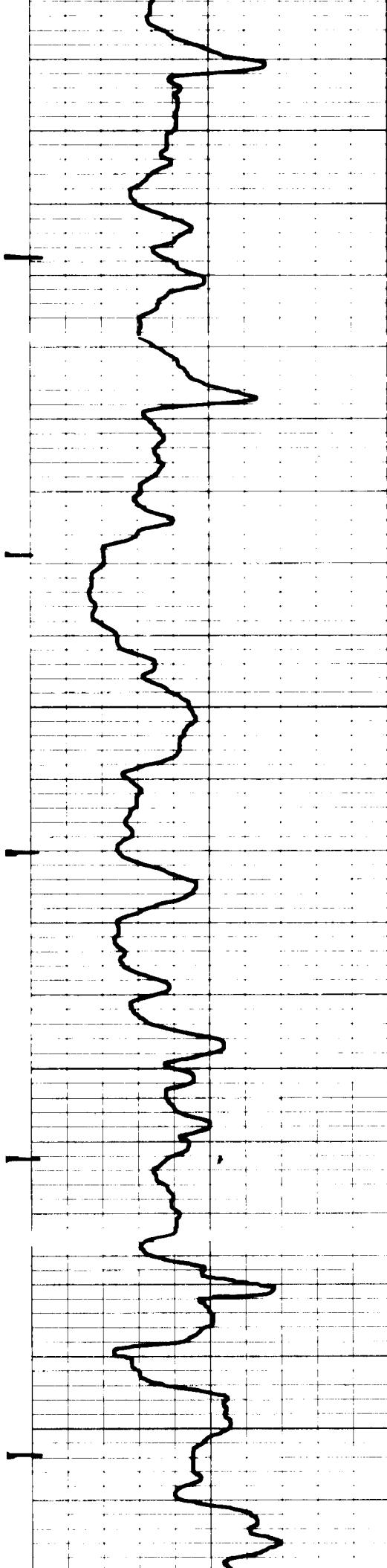
2400



2500

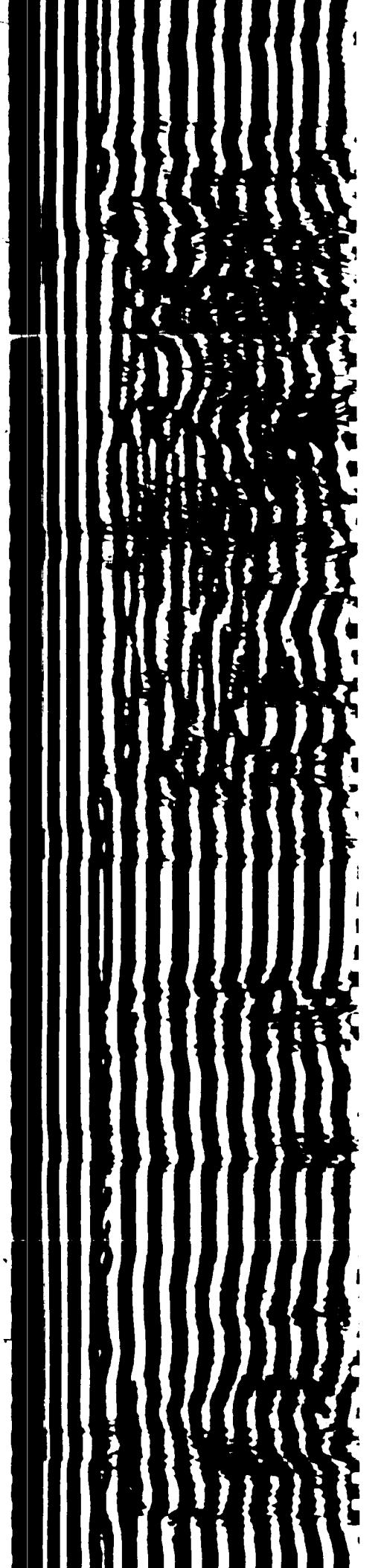
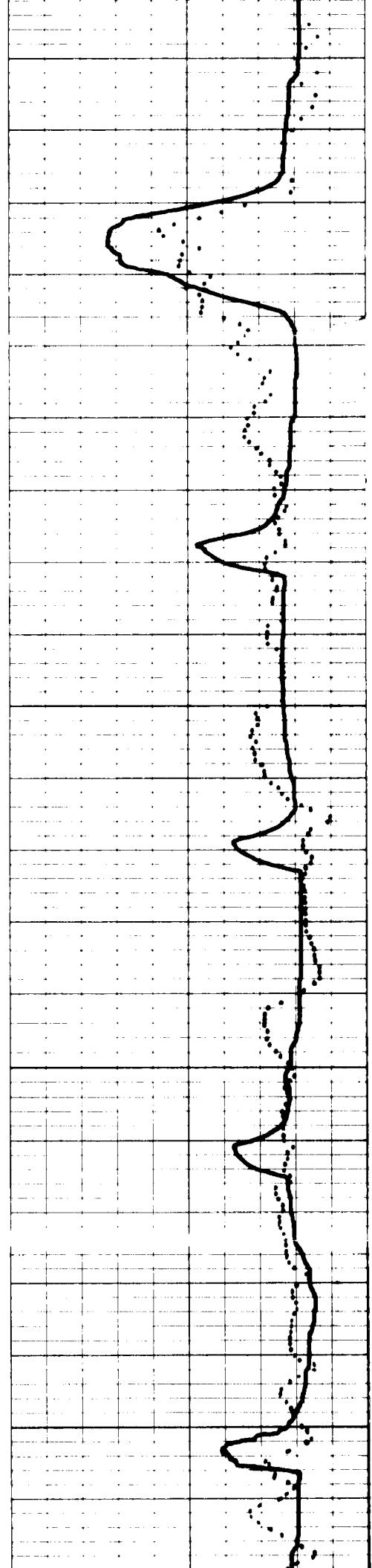


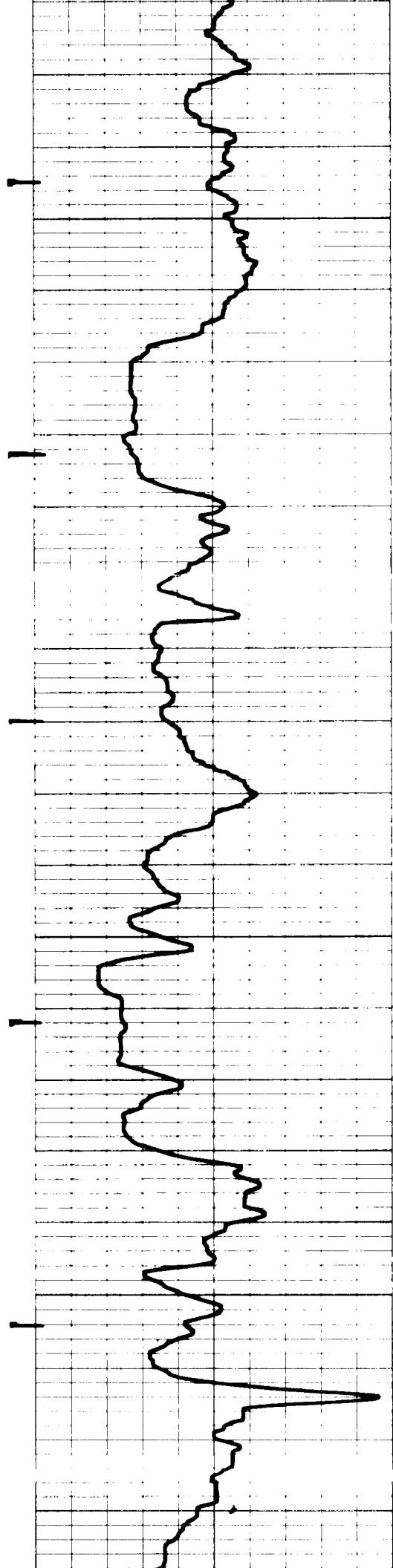
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2700

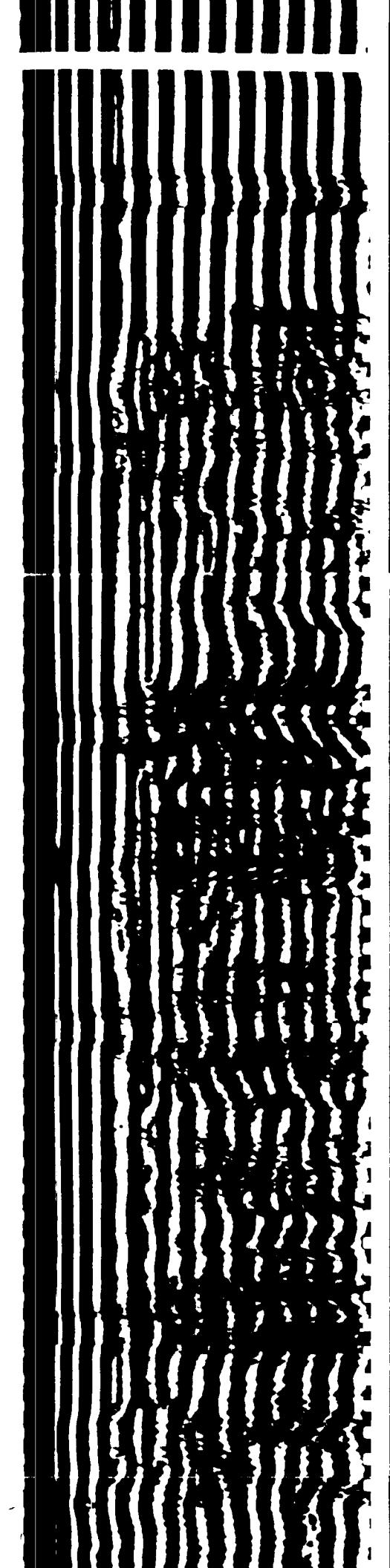
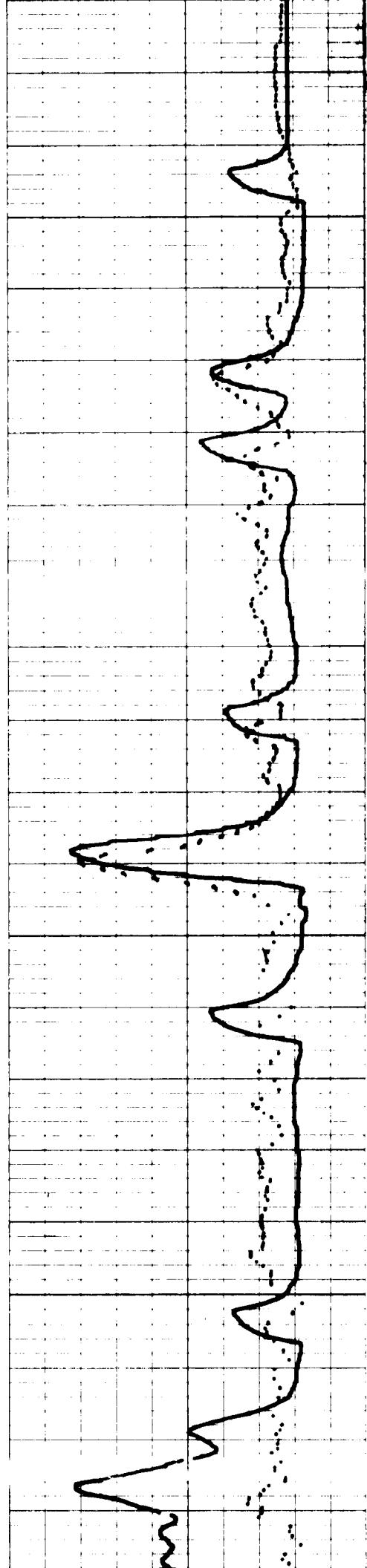
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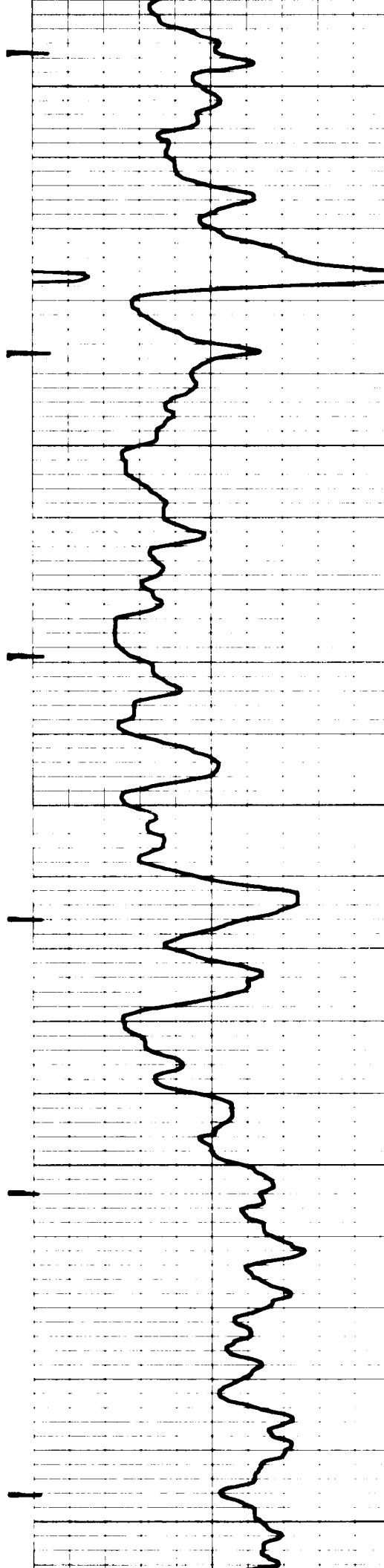




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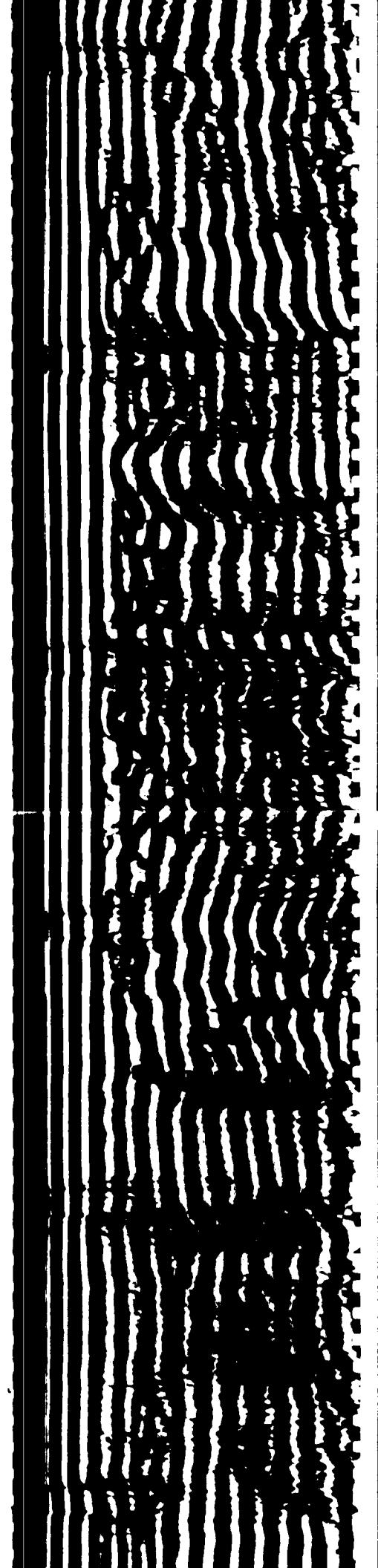
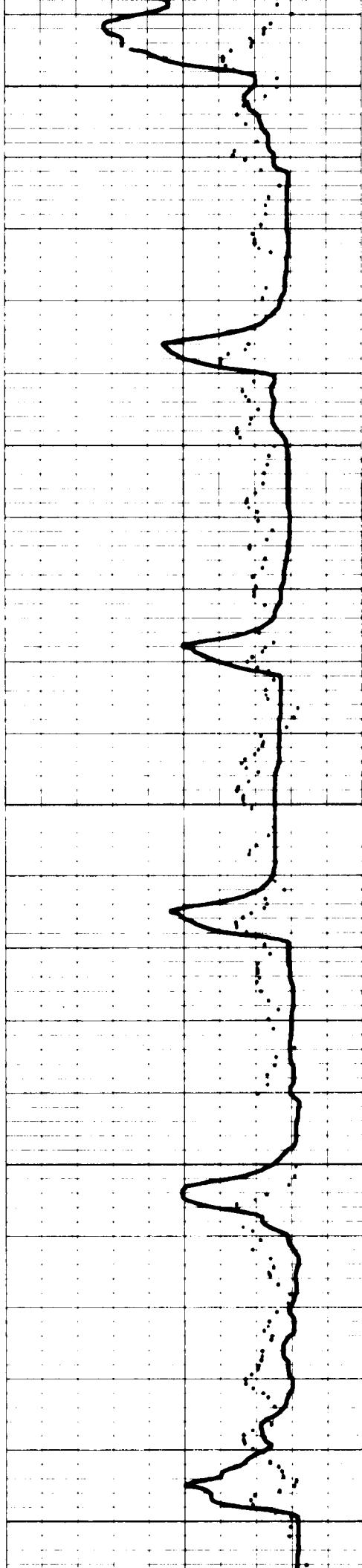
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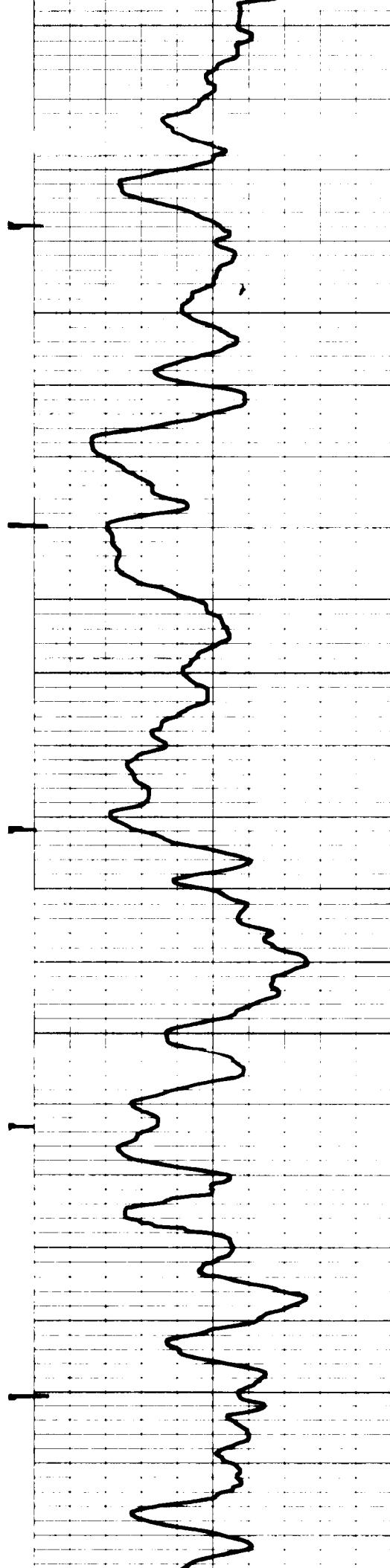




3100

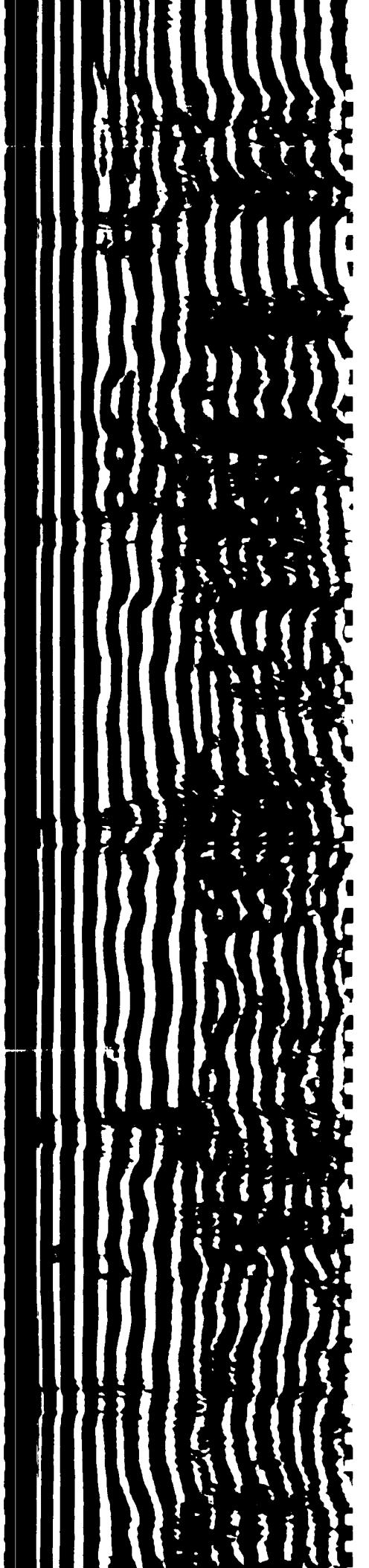
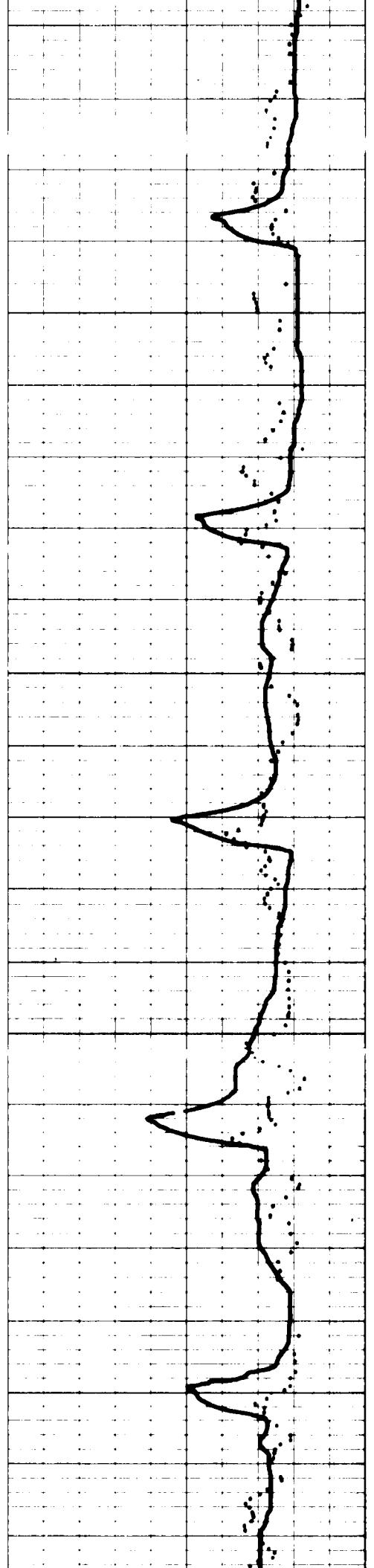
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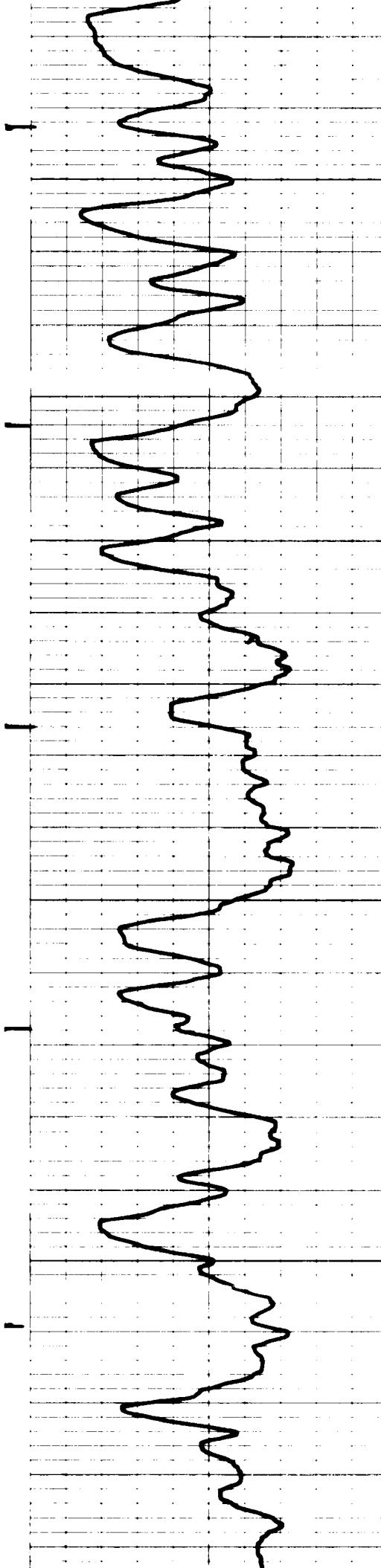




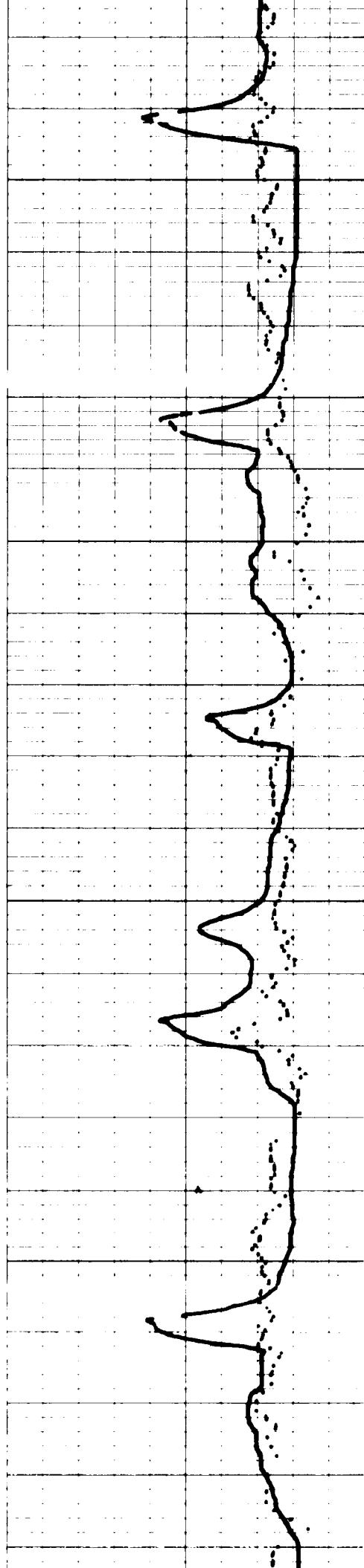
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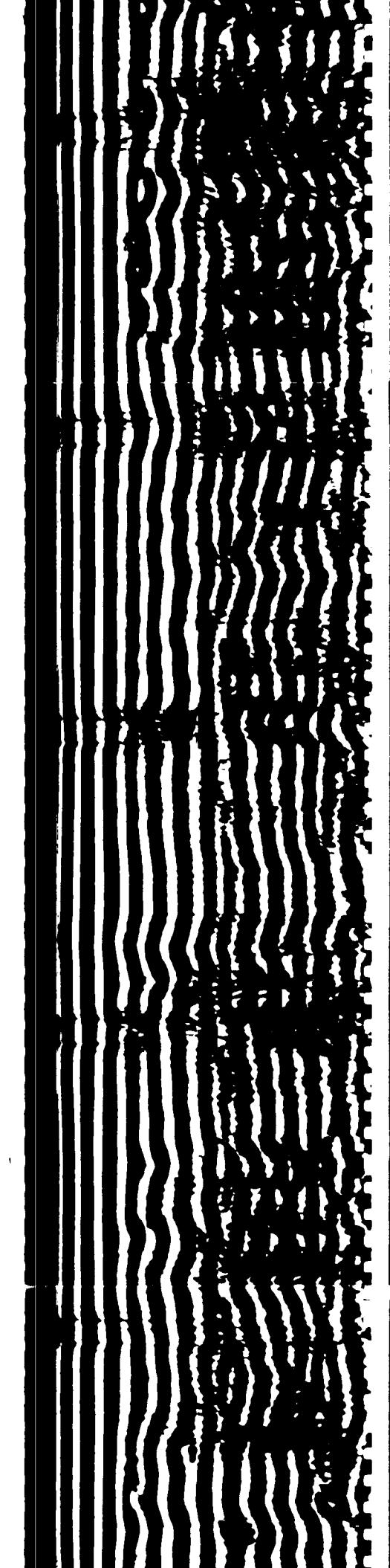




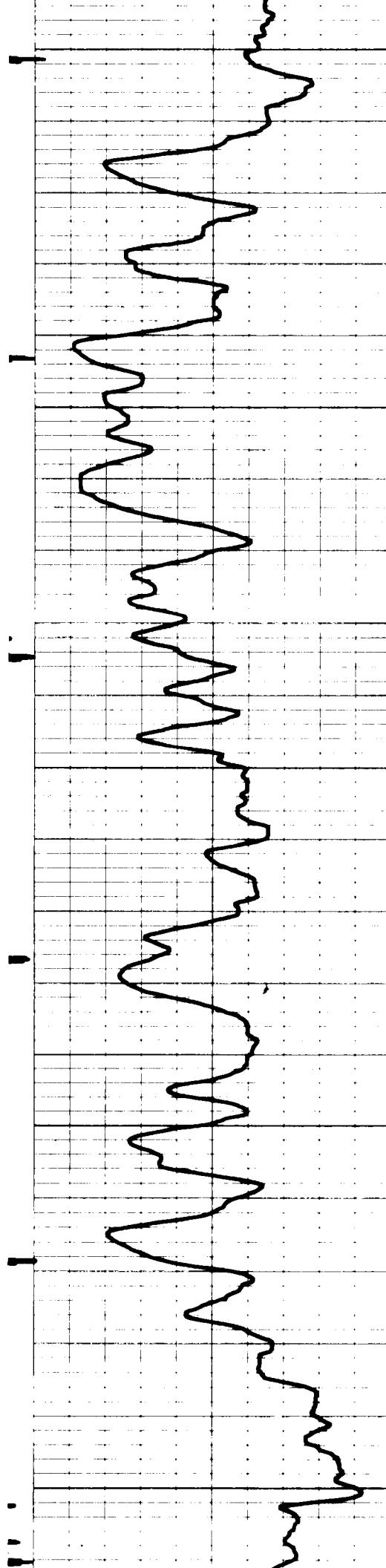
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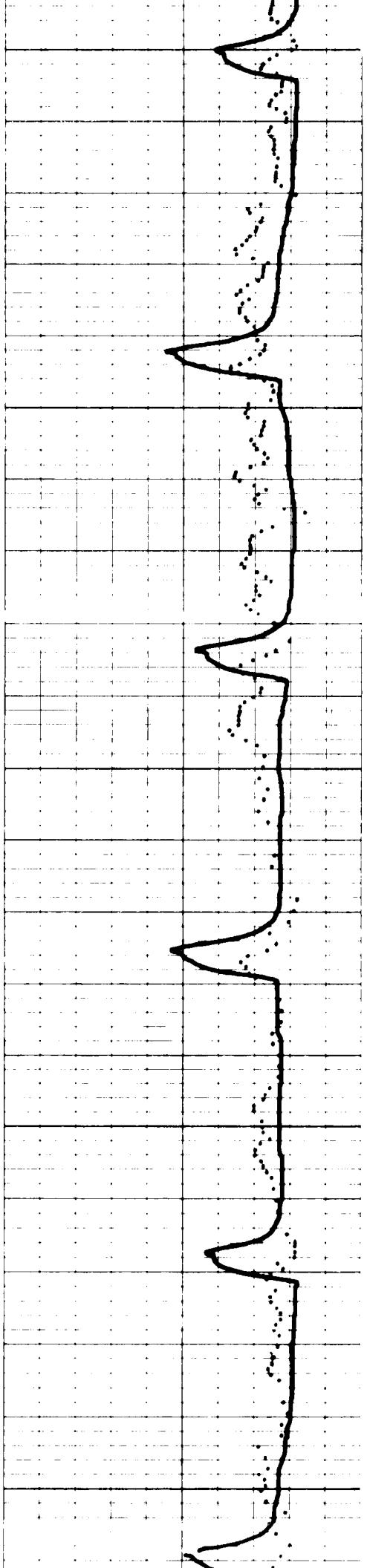
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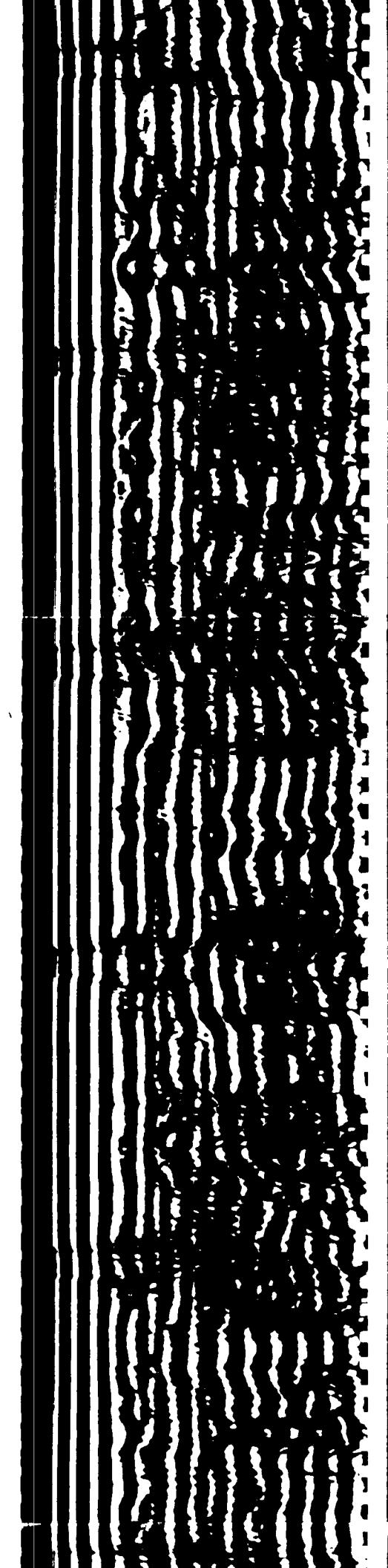
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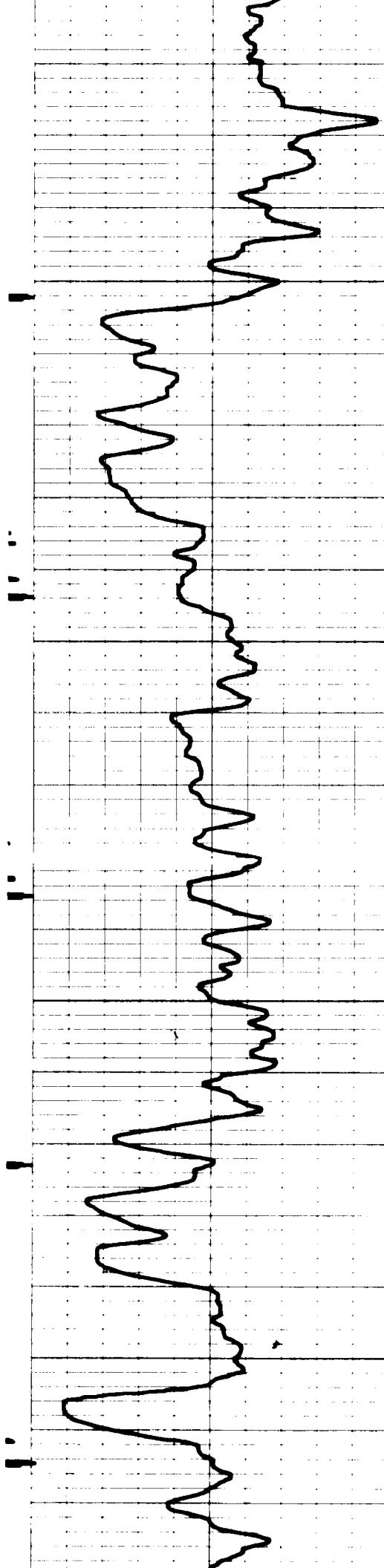


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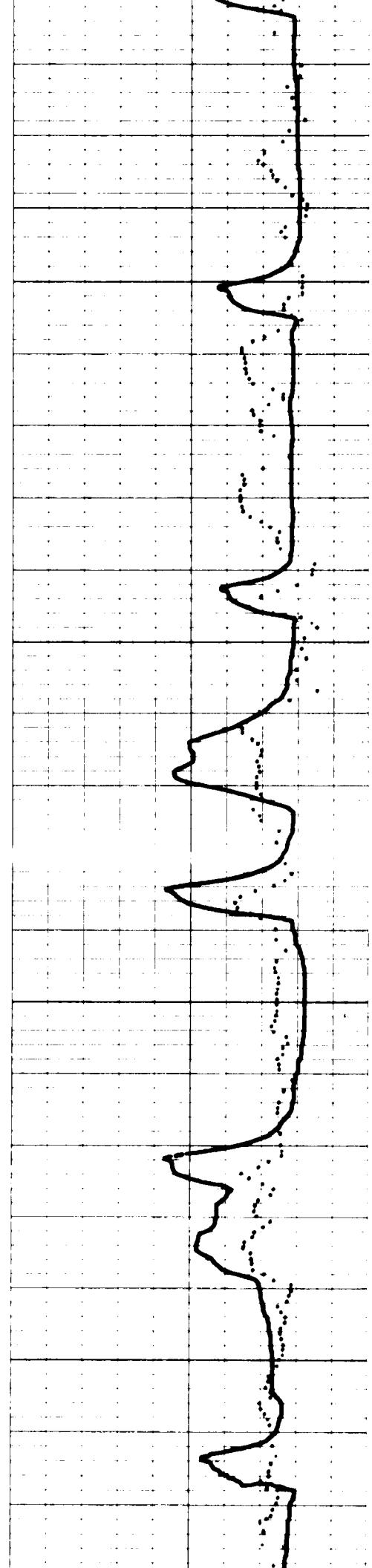
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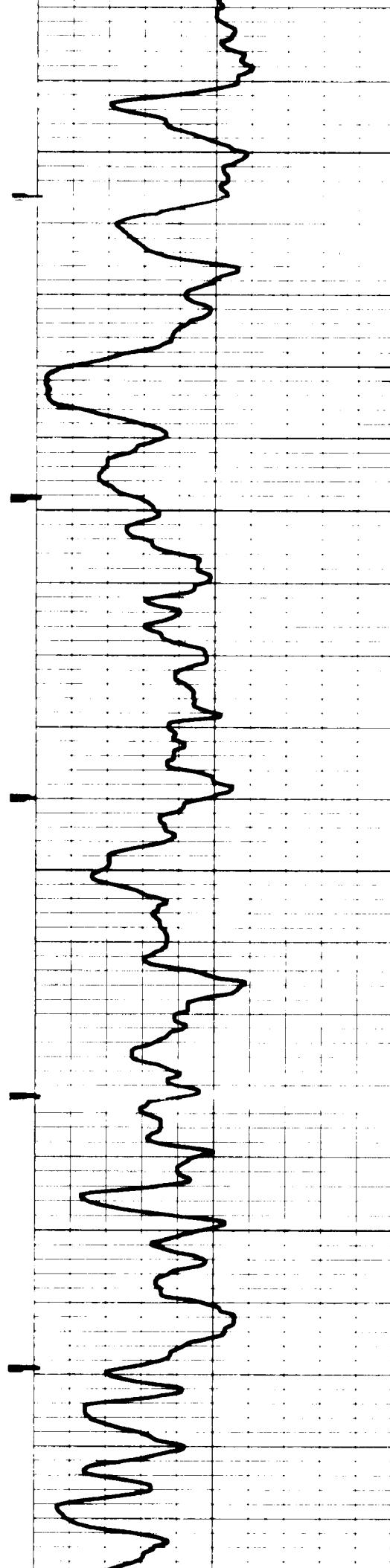




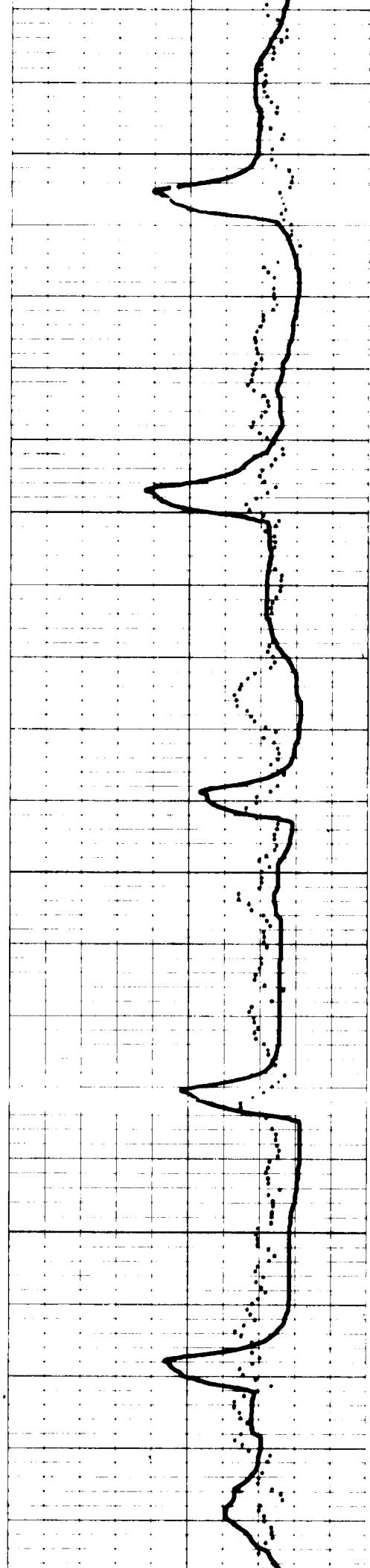
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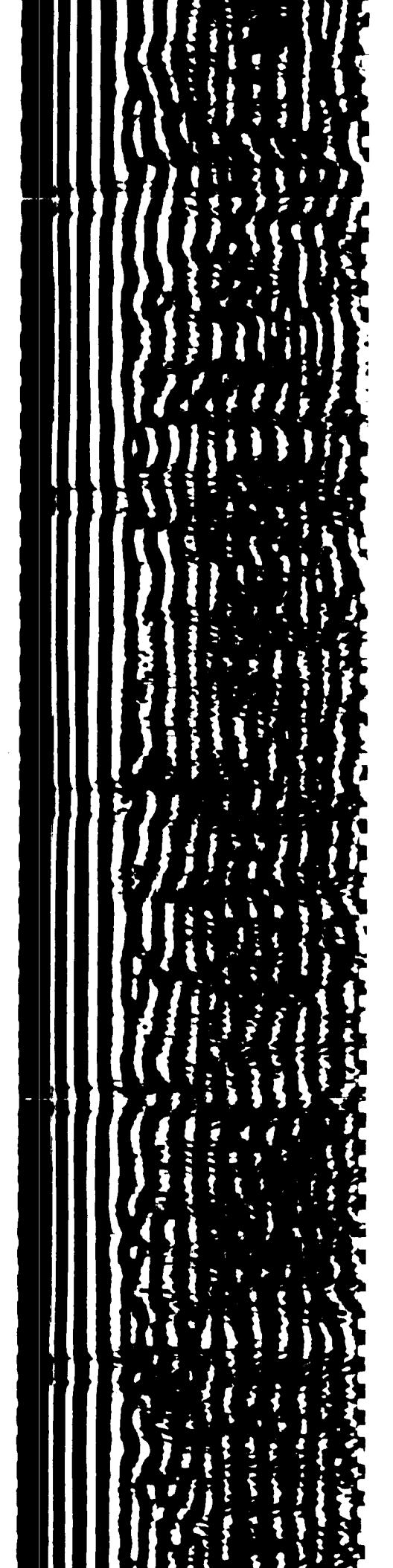


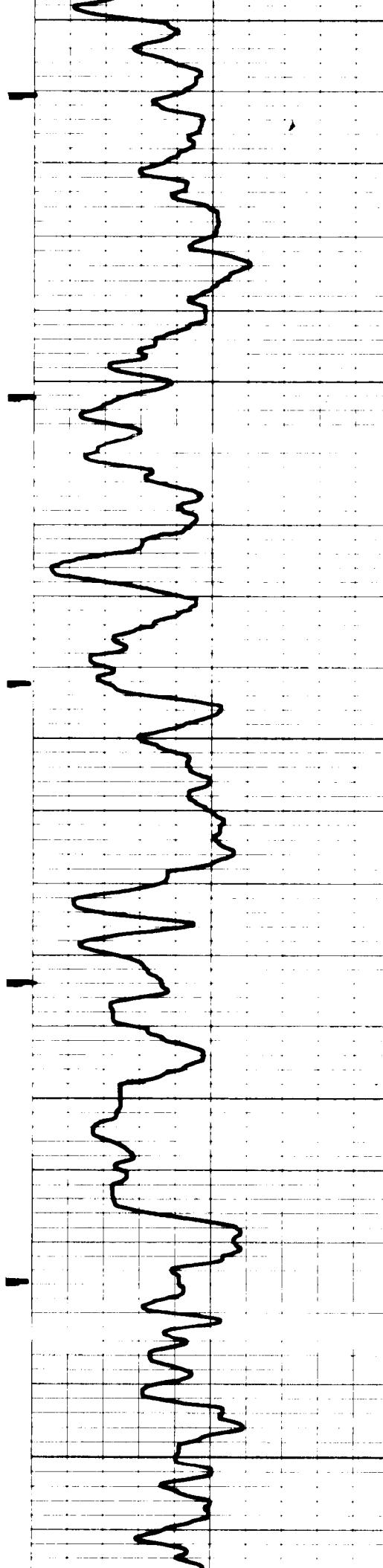


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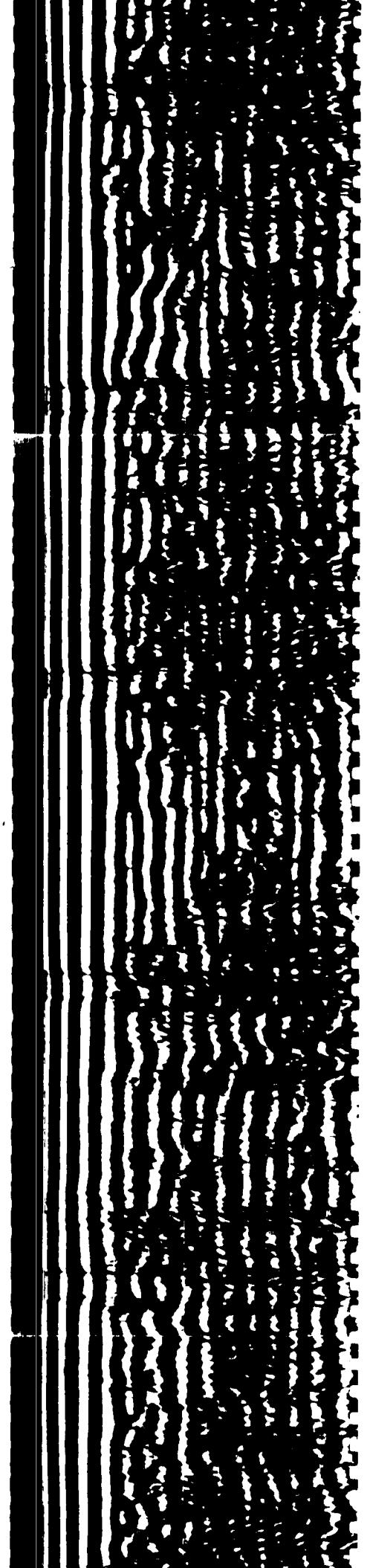
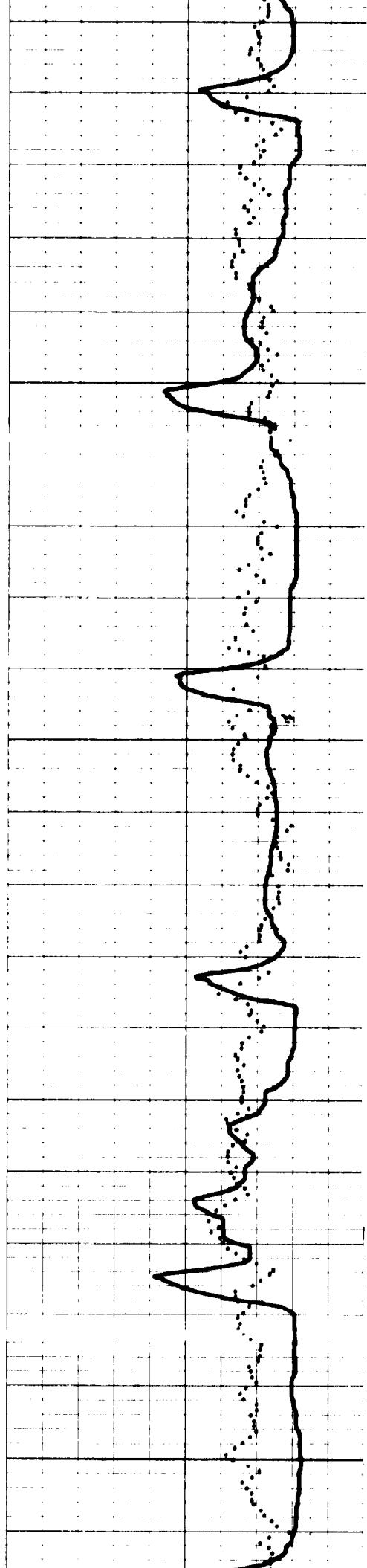
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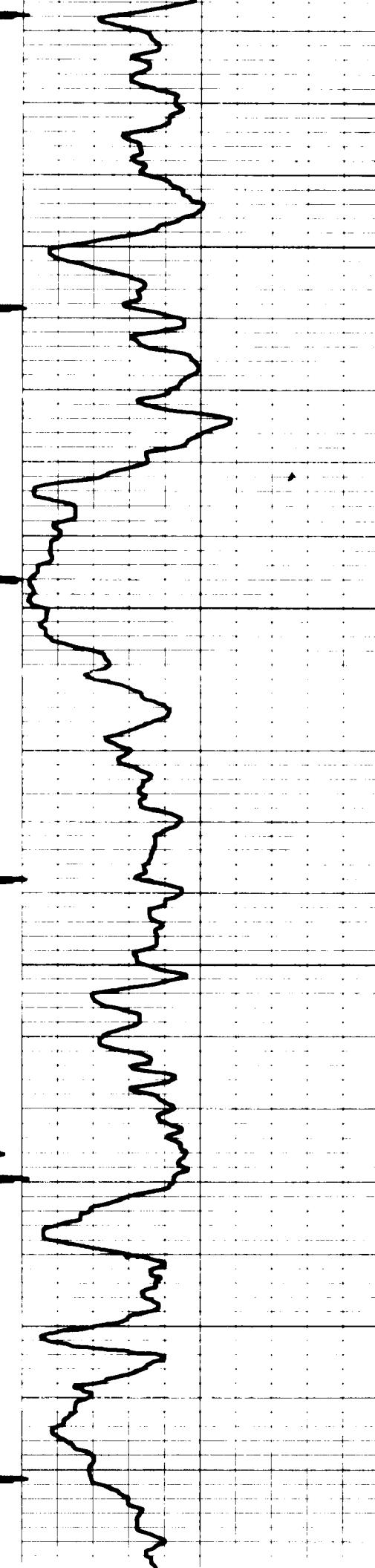


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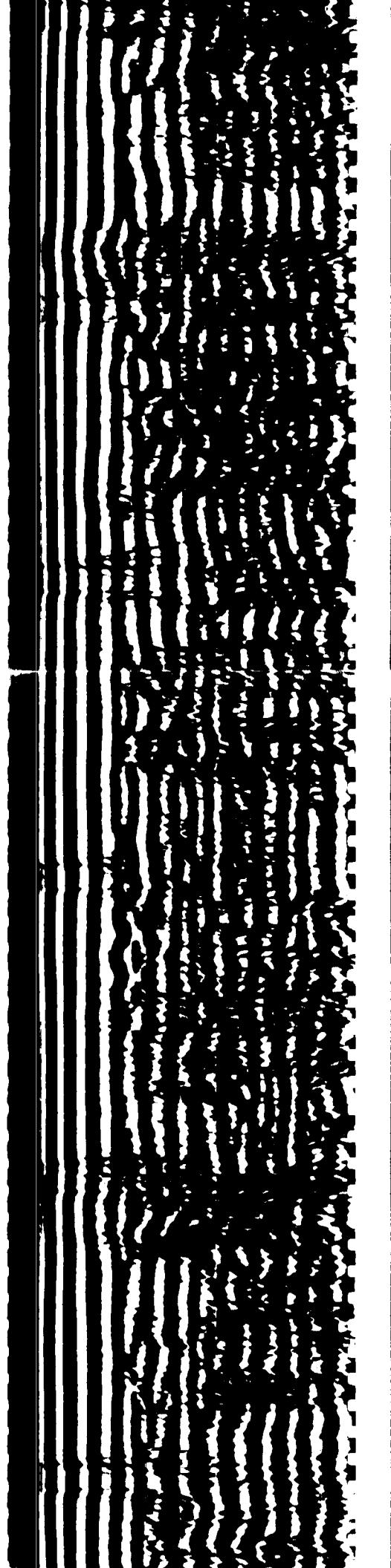
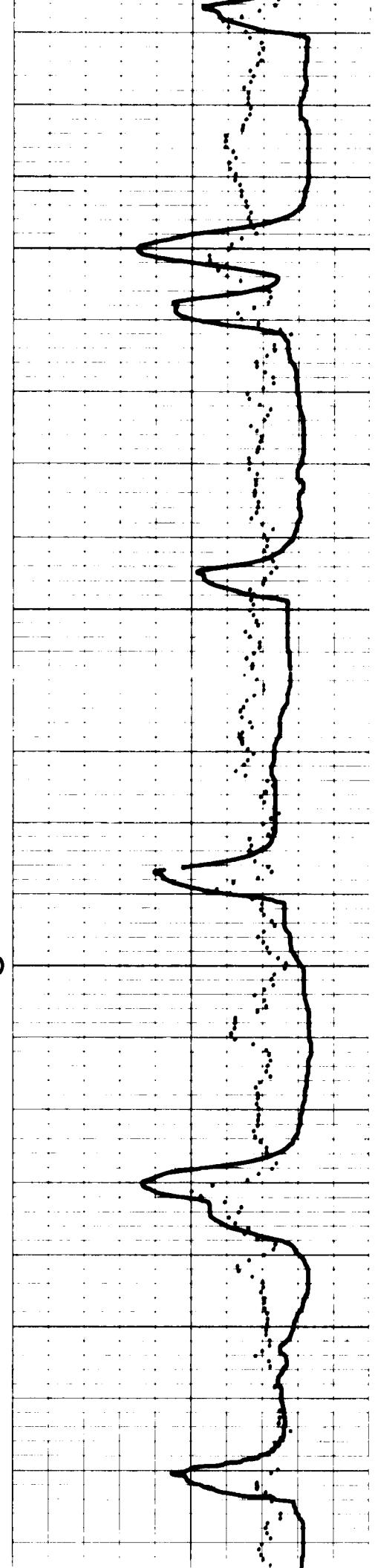
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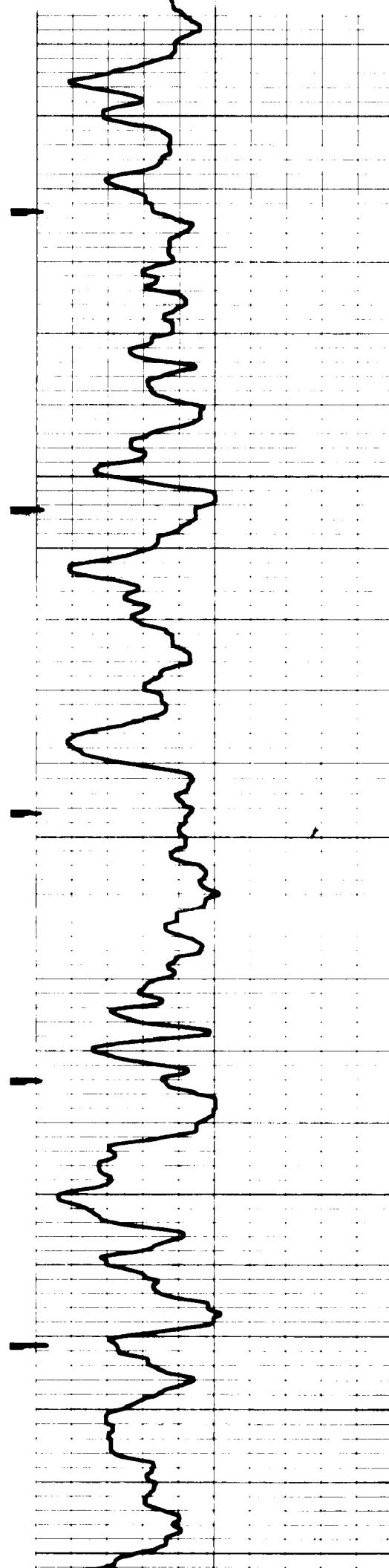


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4700

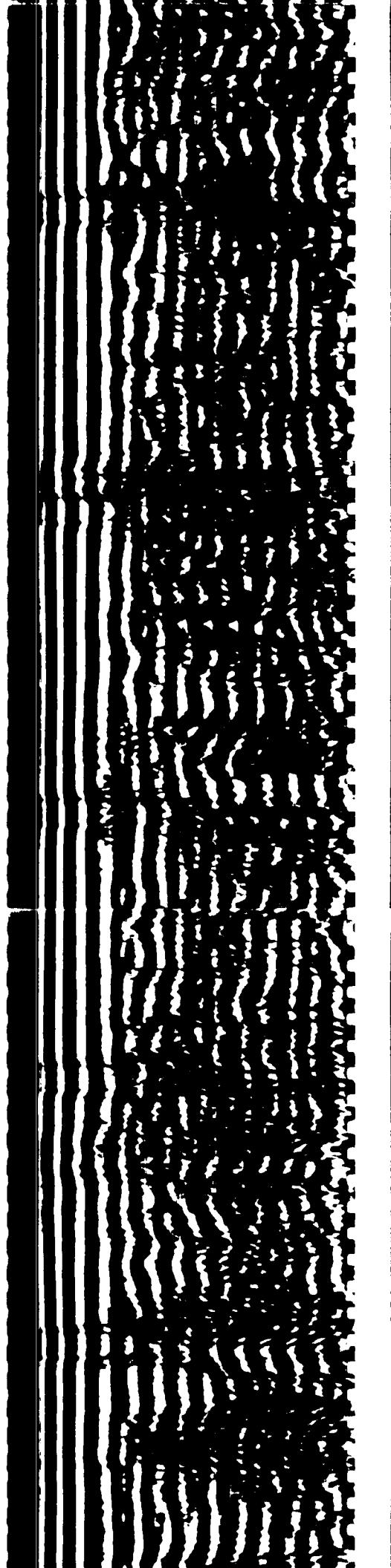
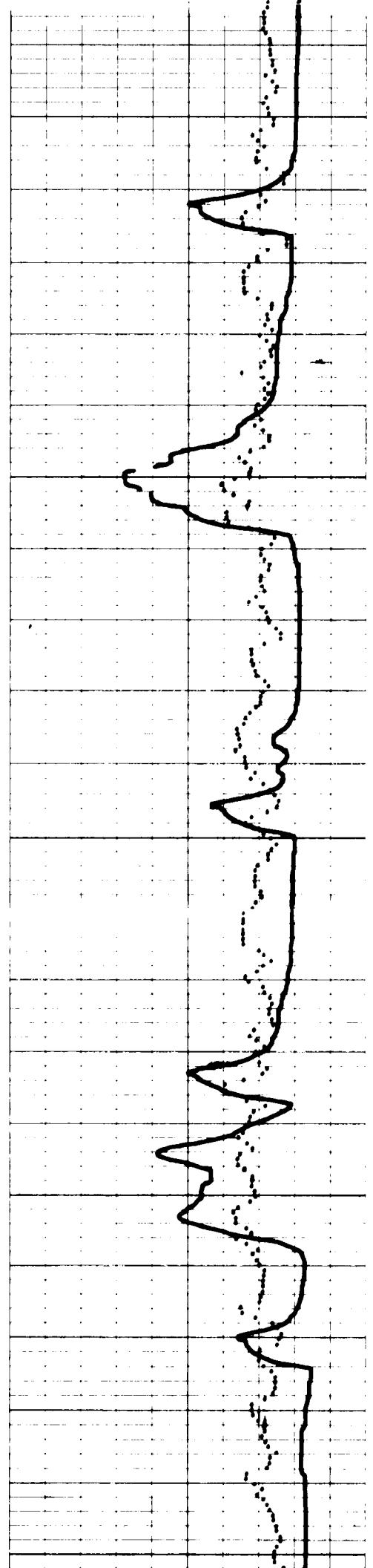


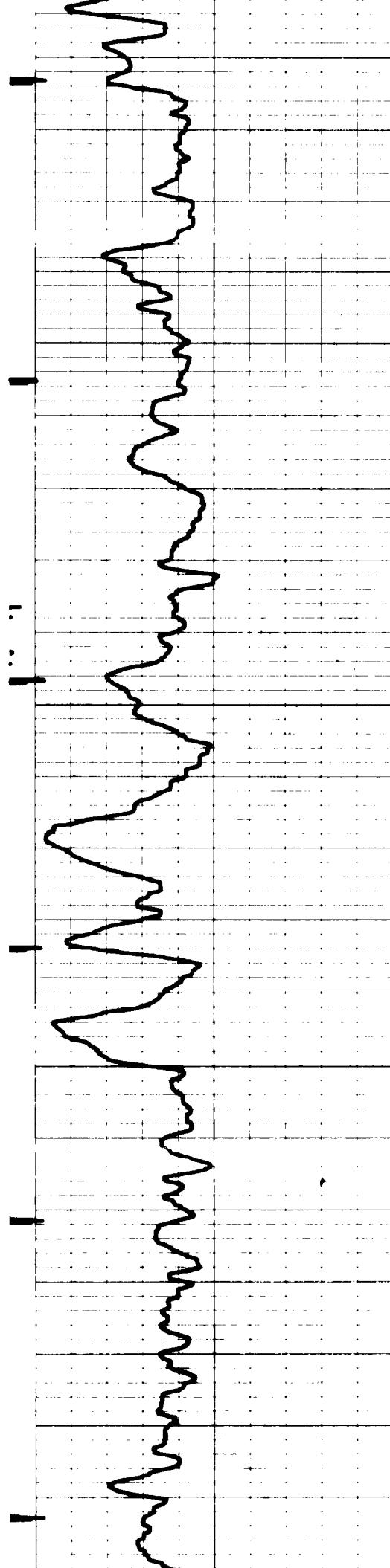


4800

4900

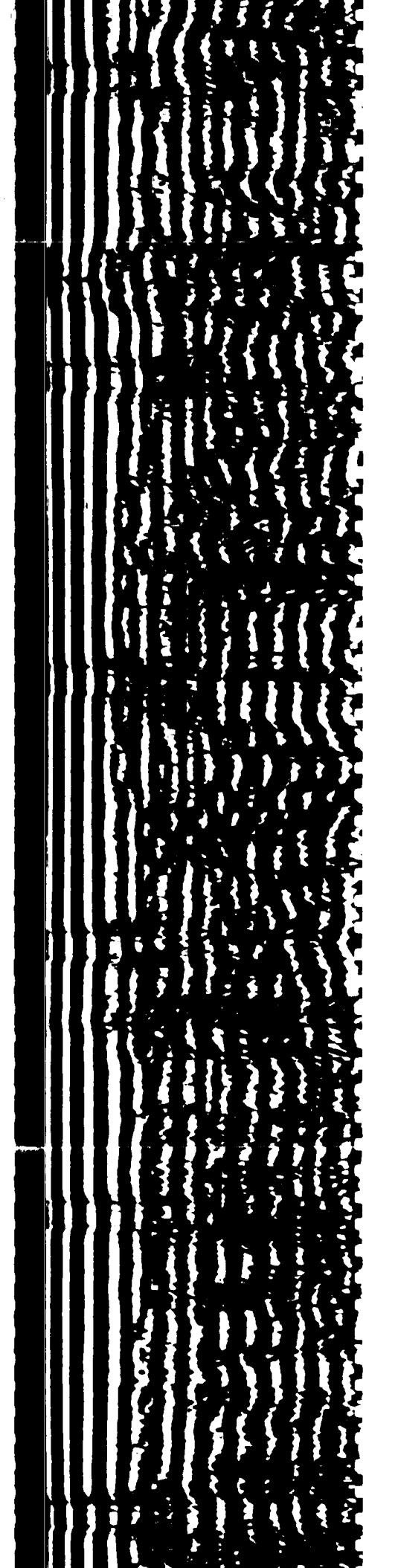
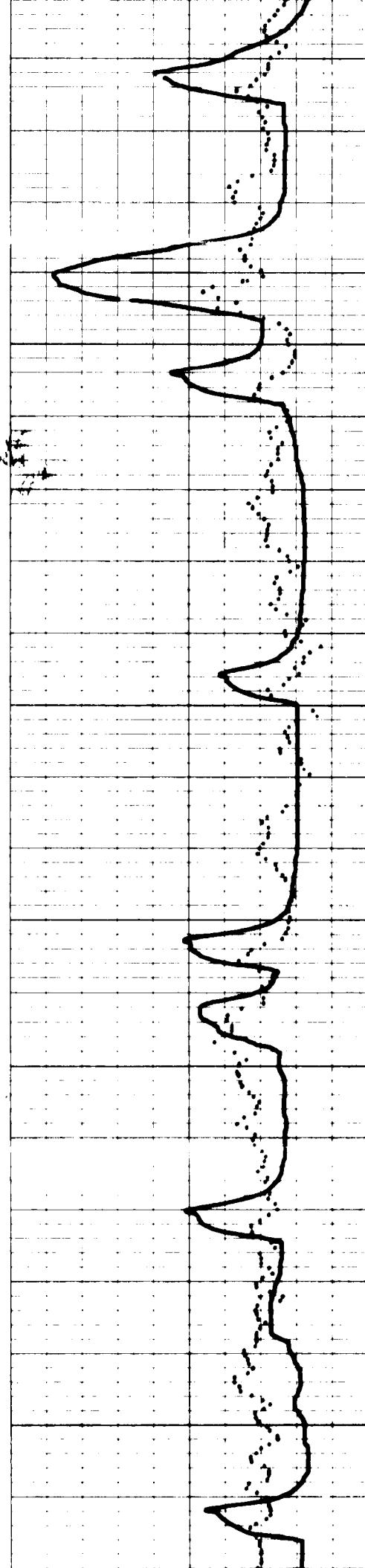
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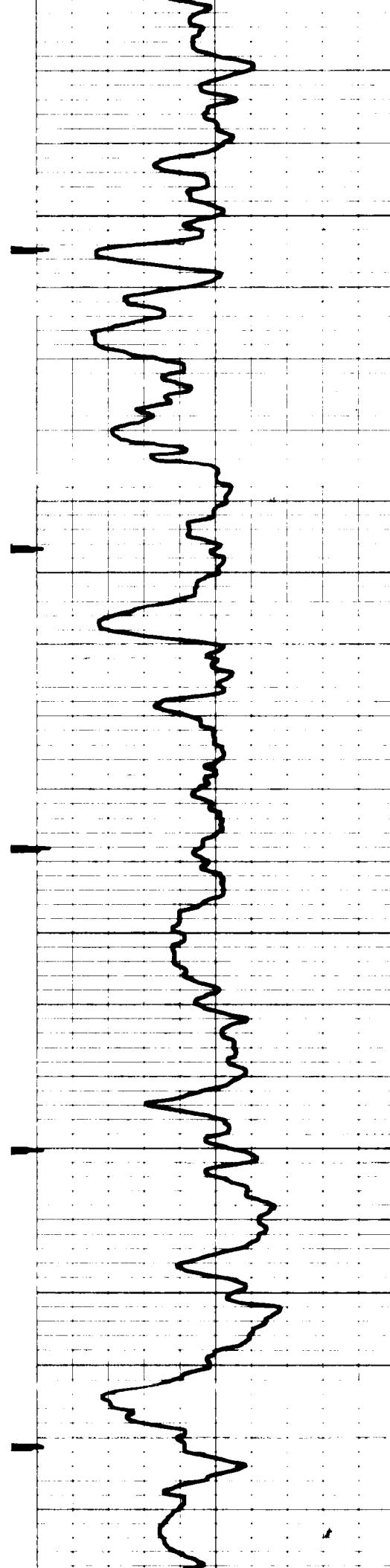




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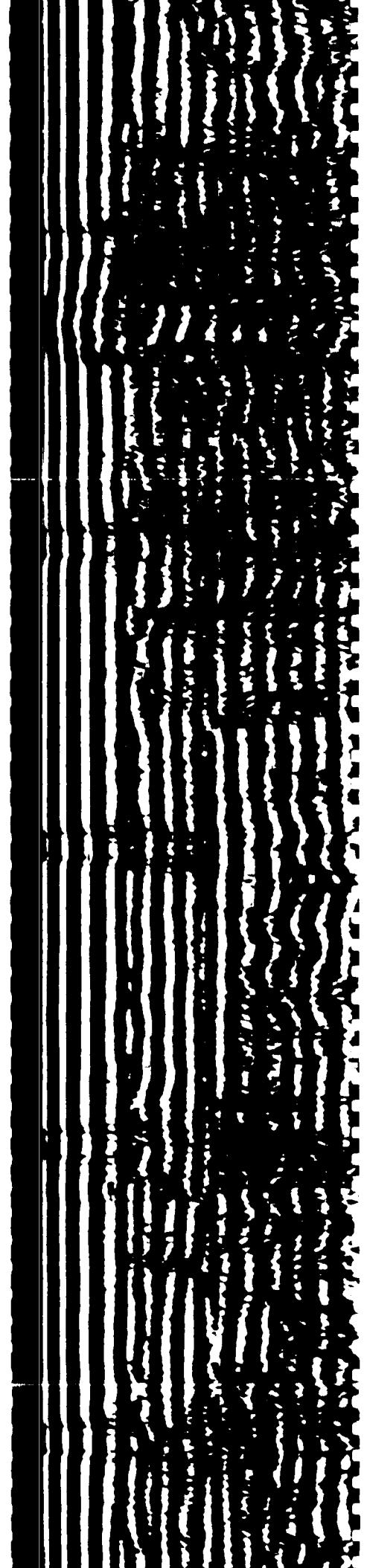
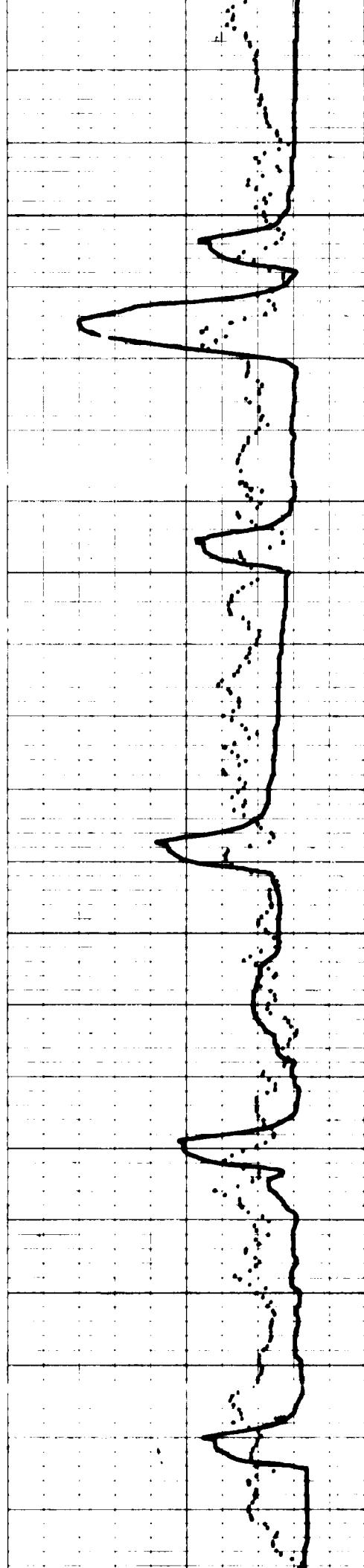
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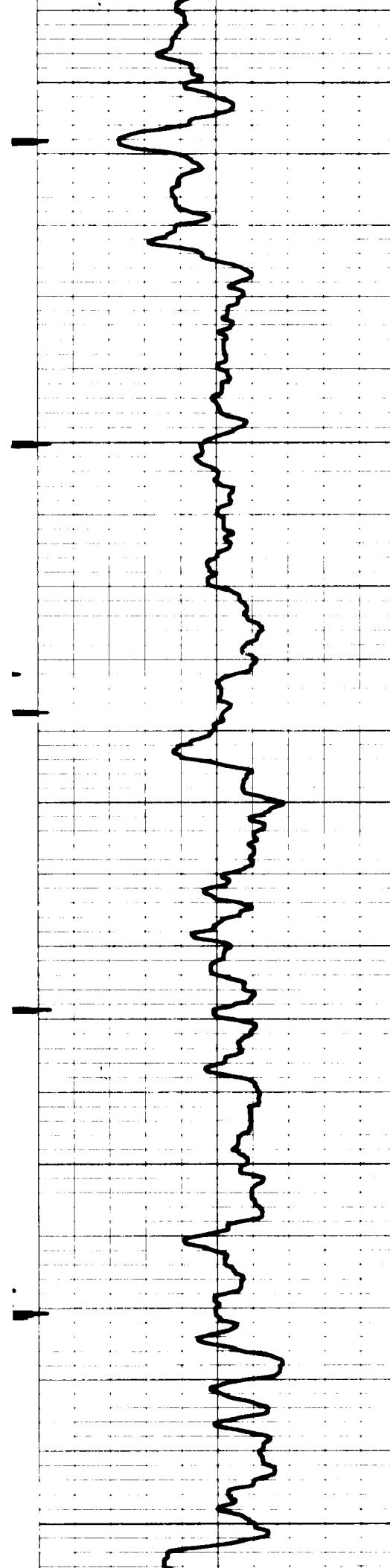




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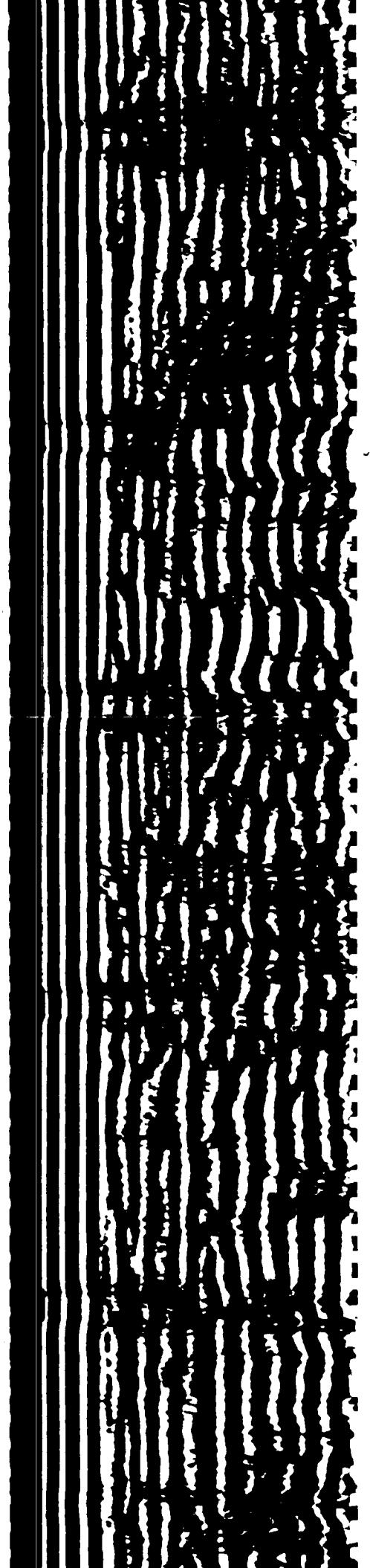
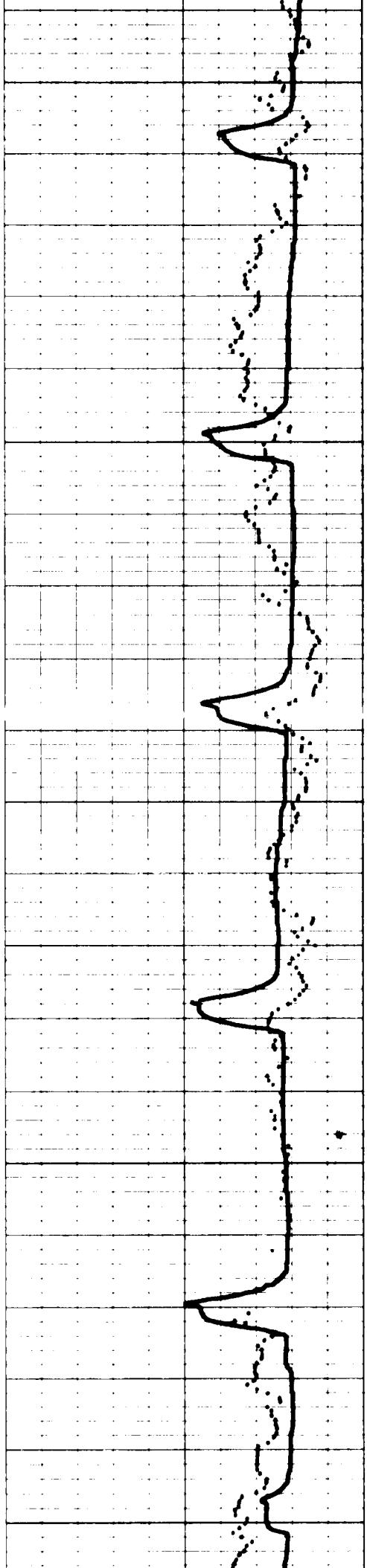
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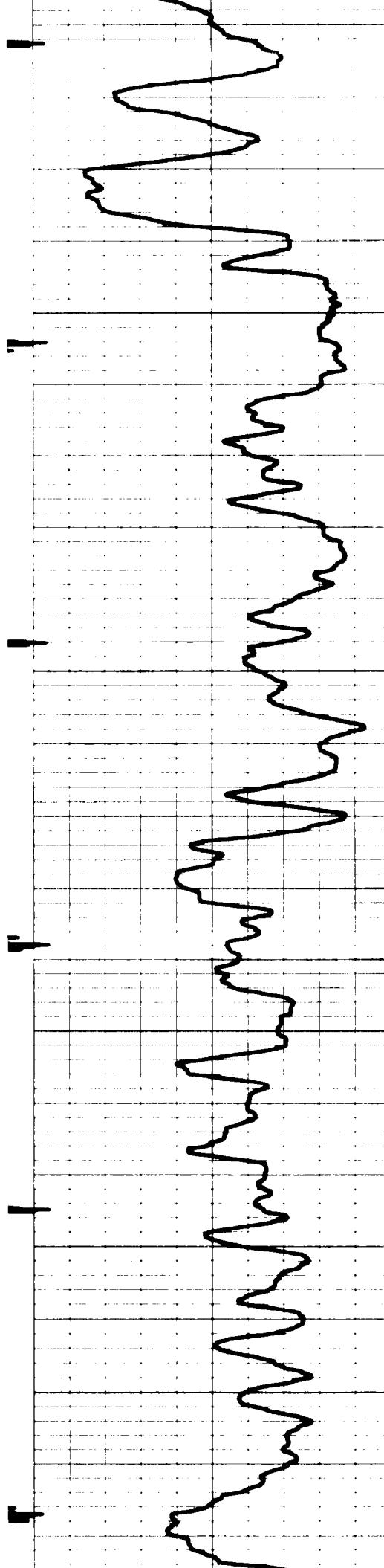




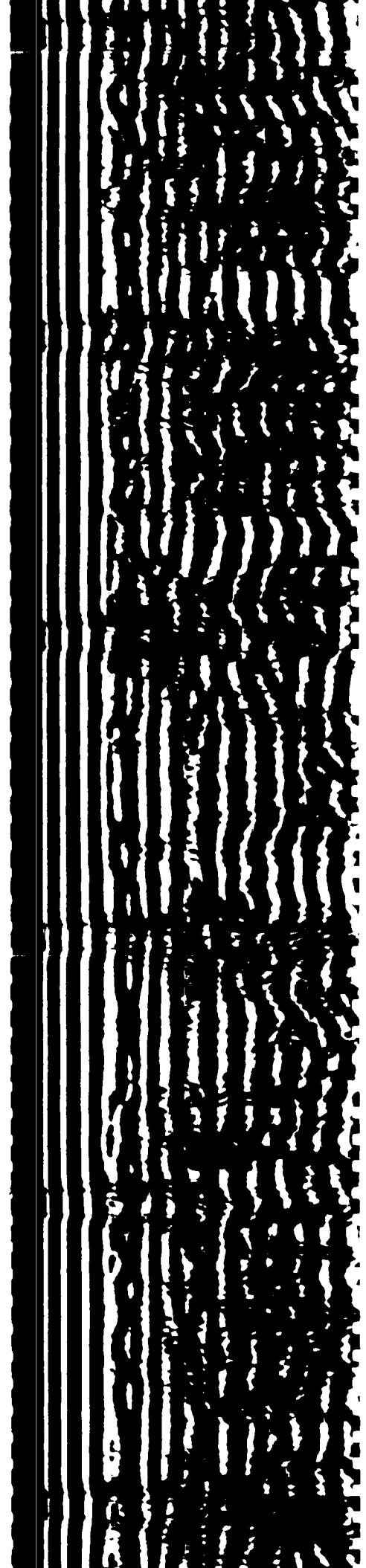
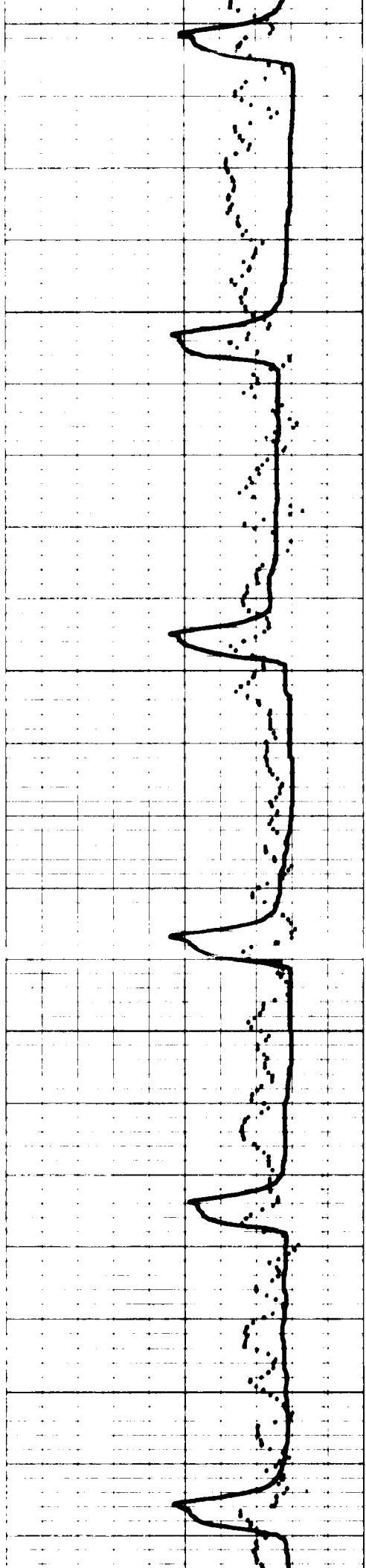
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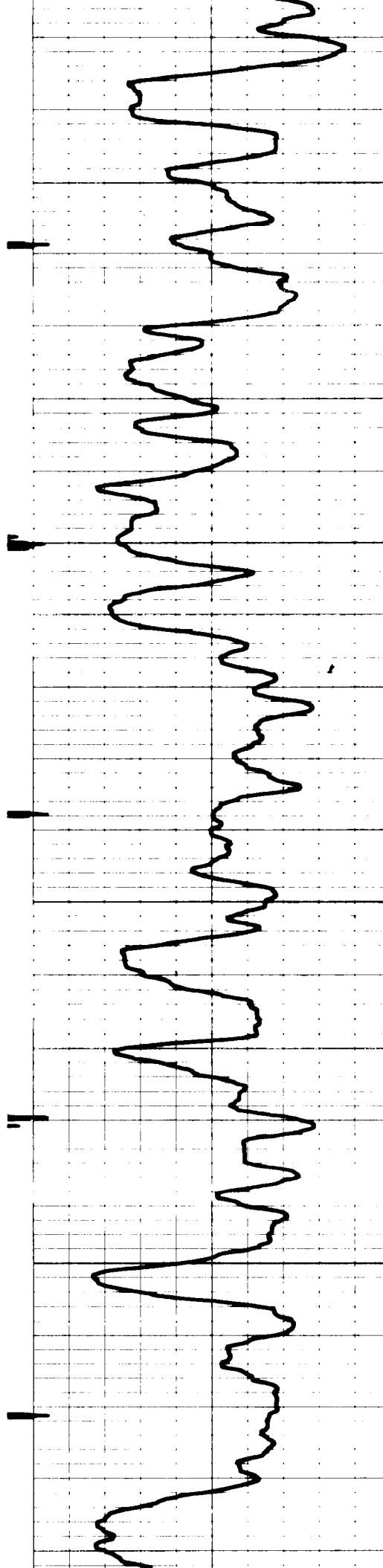
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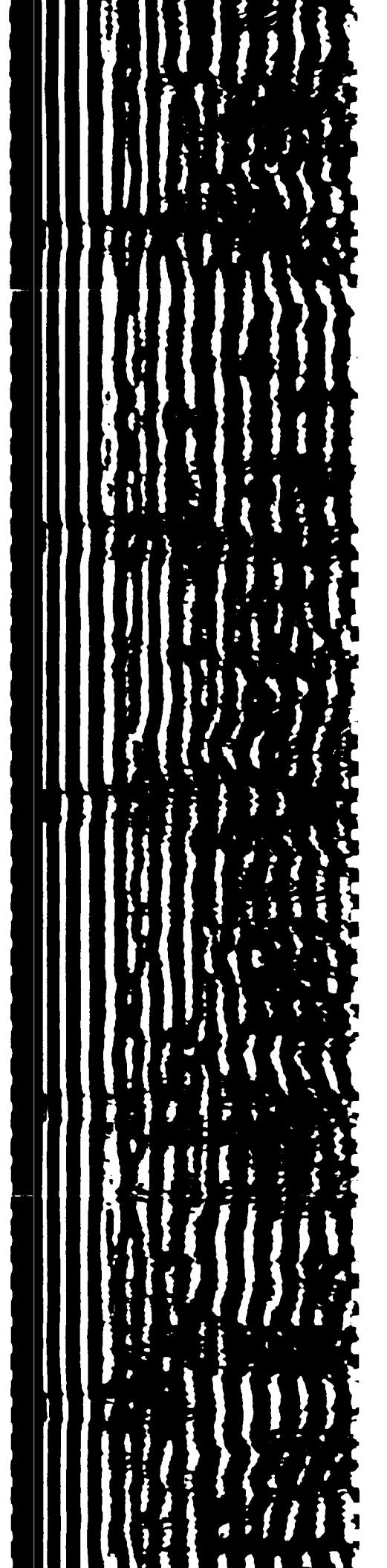
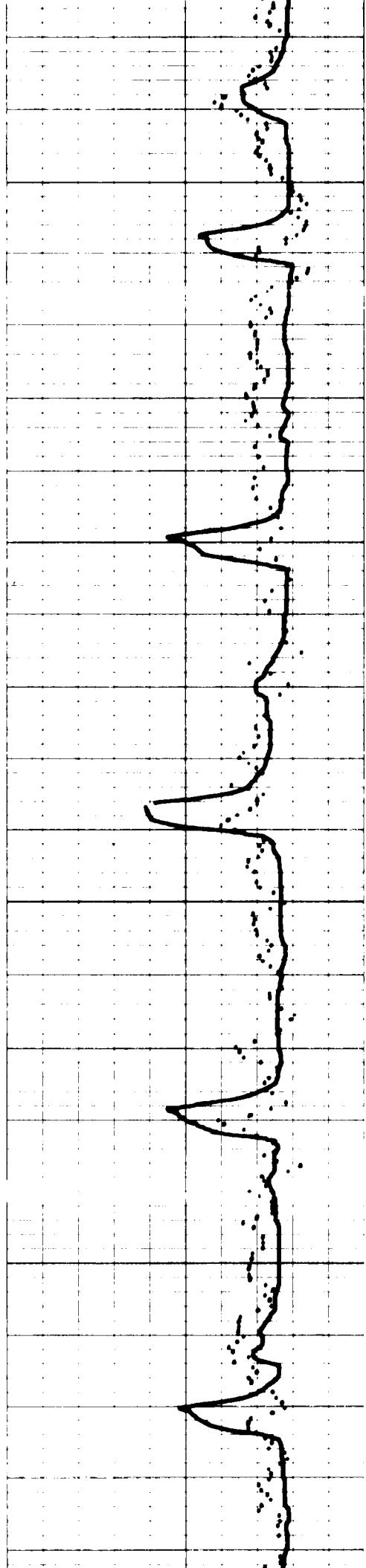
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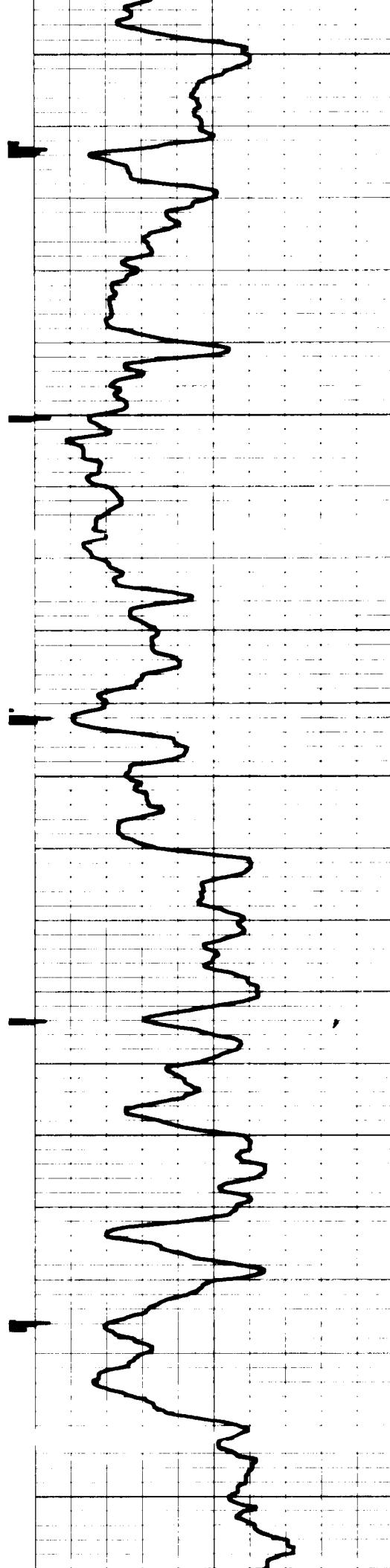




5900

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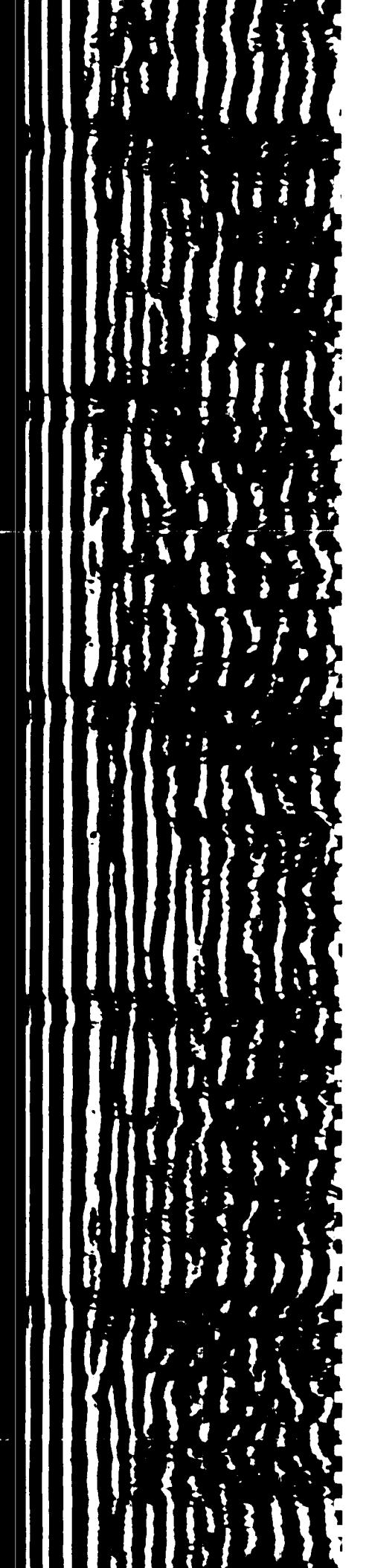
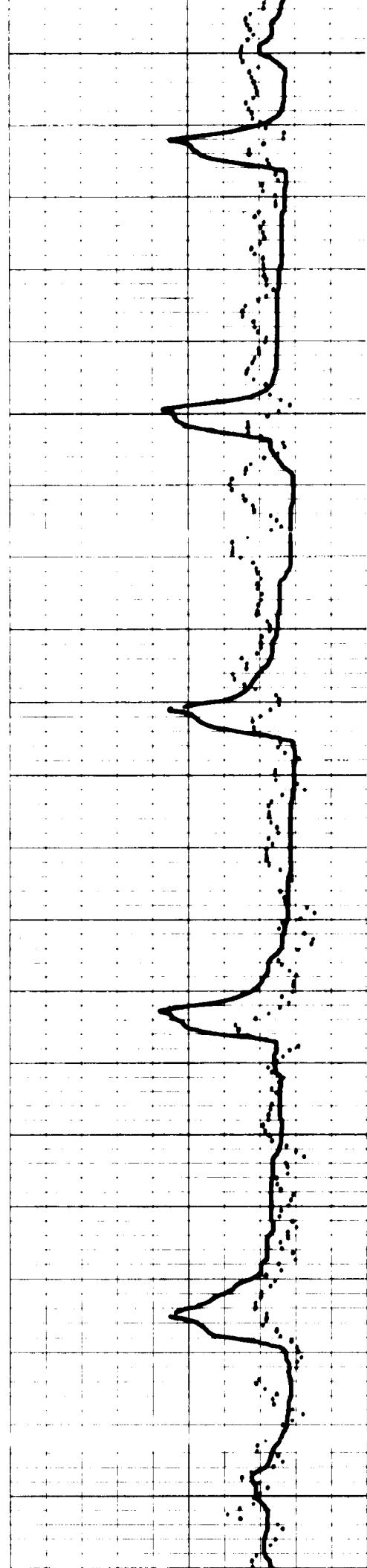


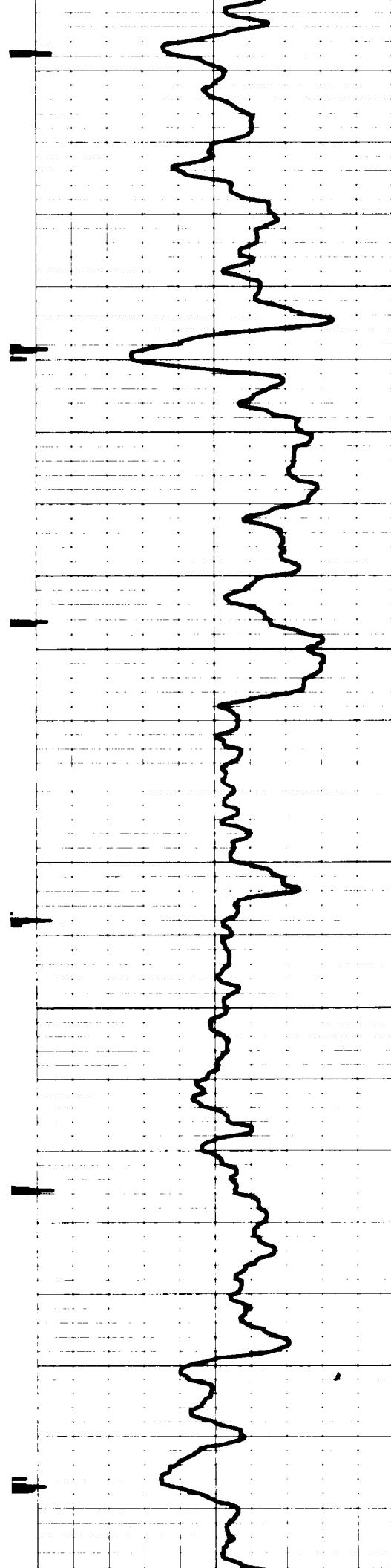


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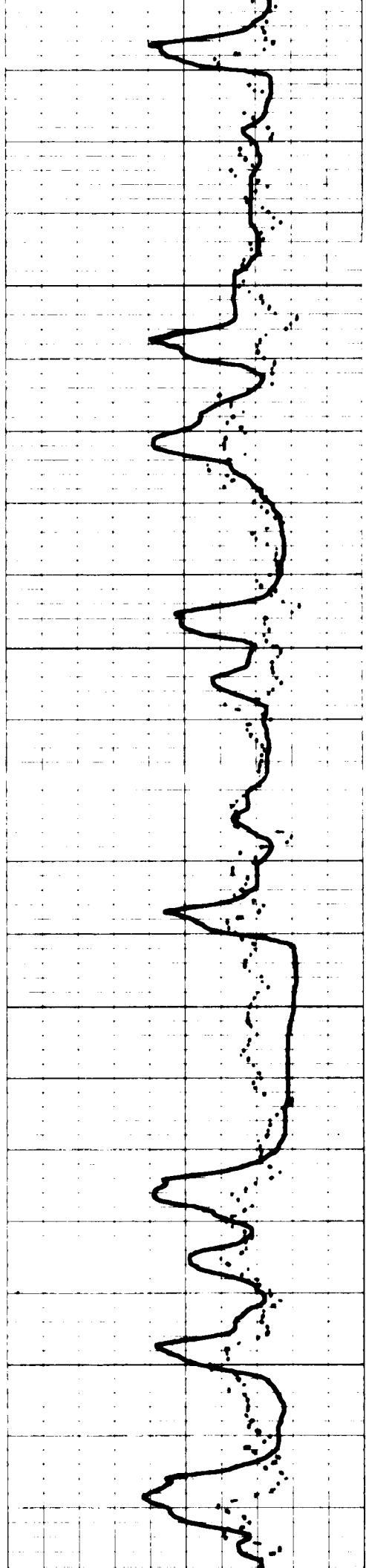
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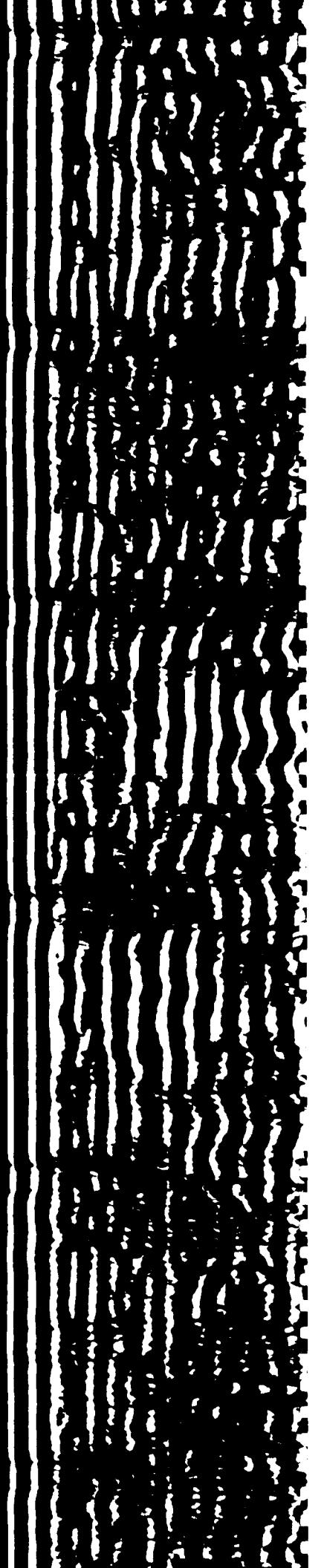


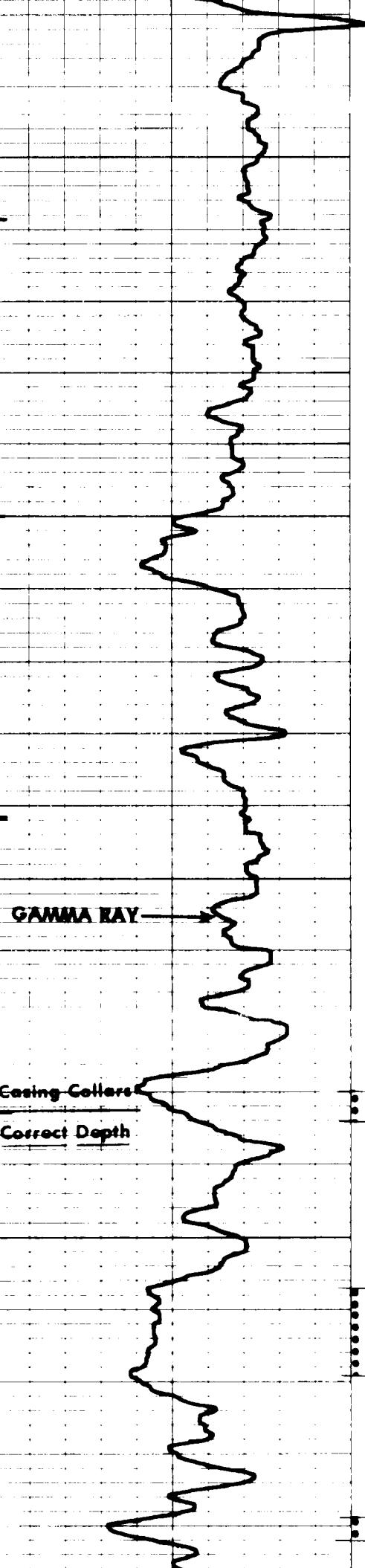


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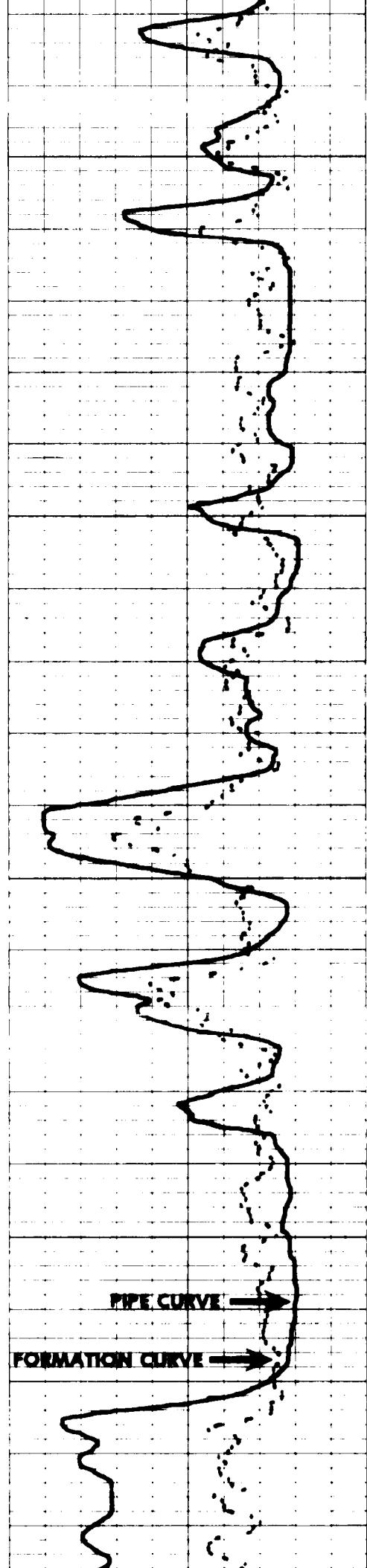
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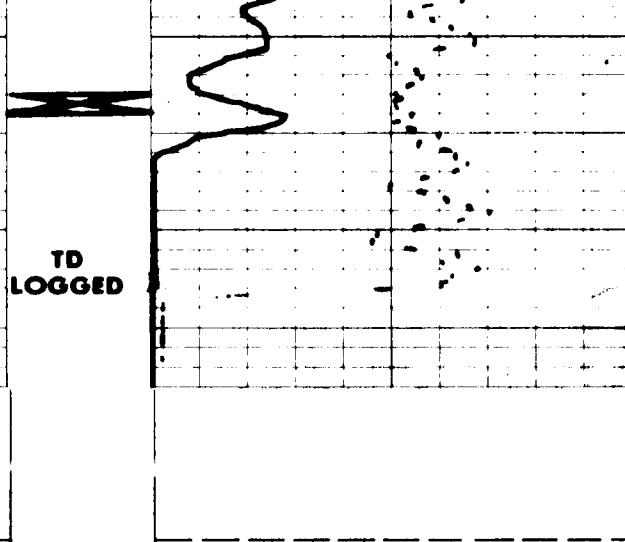
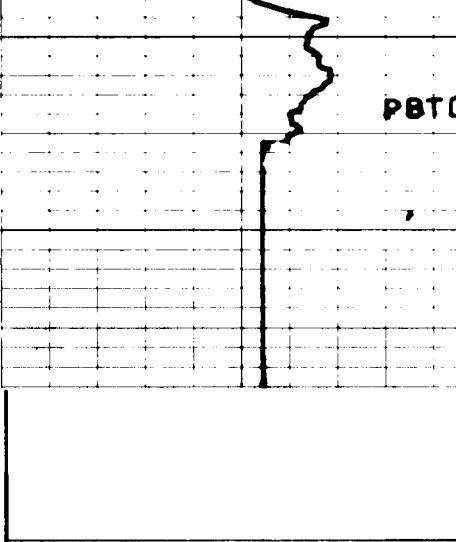




6600

6700





0	200
200	400

GAMMA
API Gamma Ray Units

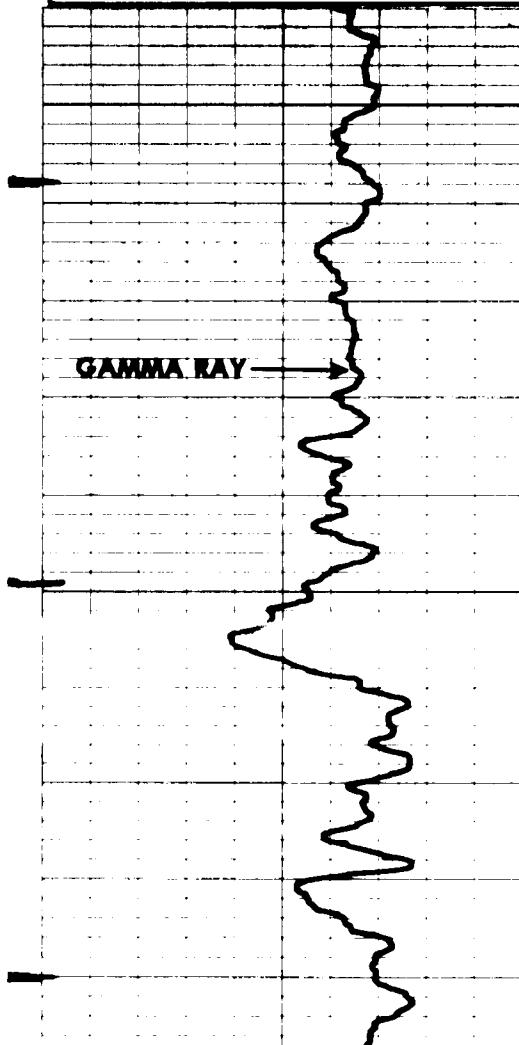
FORMATION	MICRO-SEISMOGRAM® LOG		
PIPE	200	400	1200
AMPLITUDE			

COOKE ENERGY COMPANY
THE TRIBAL #759
WILDCAT
DECHESNE COUNTY UTAH
SEC. 9, T55 S3W

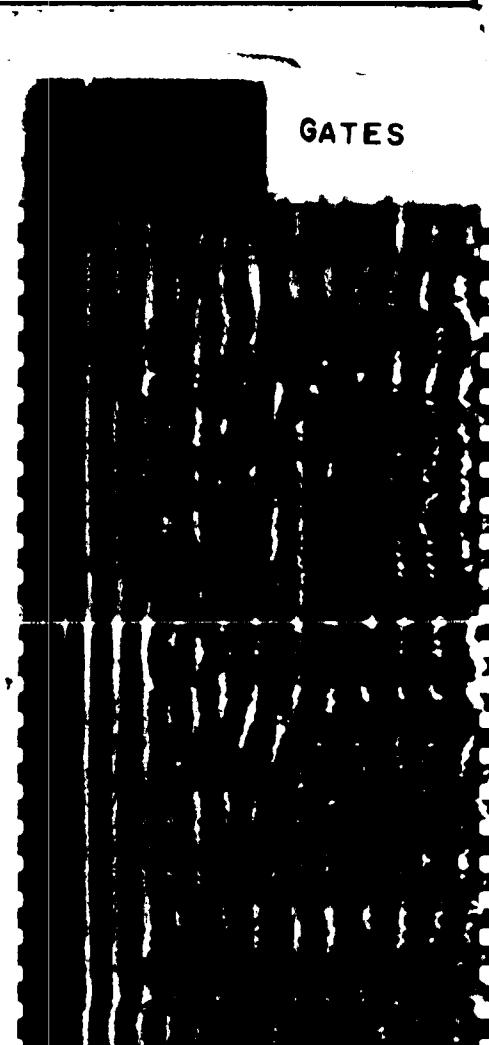
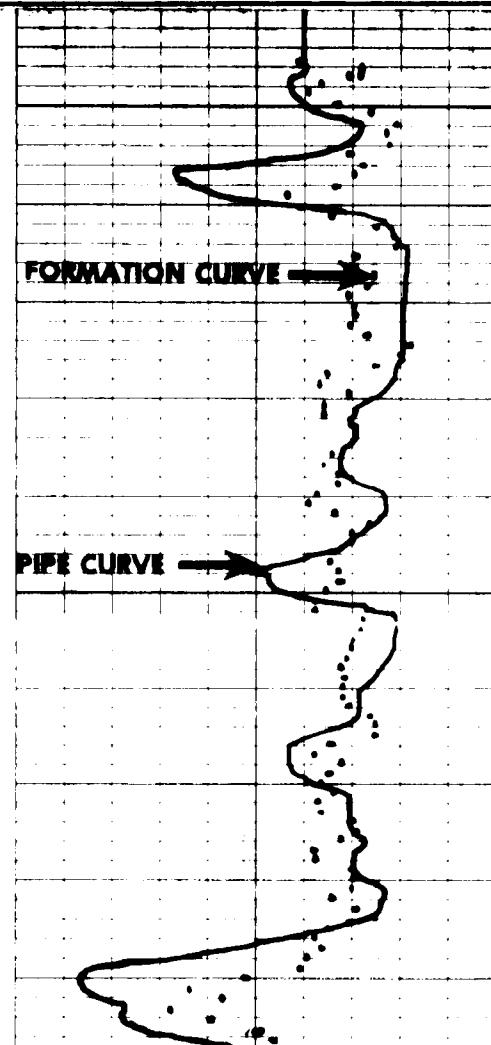
T.D. LOGGED 6776'

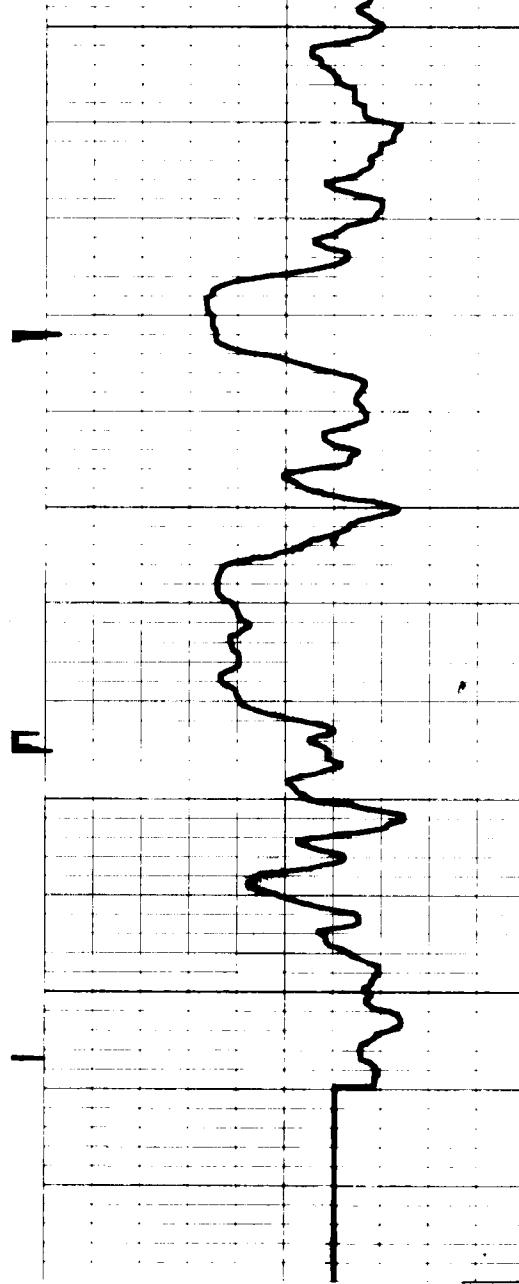
T.D. DRILLER 6787'

T.D. WELEX 6782'

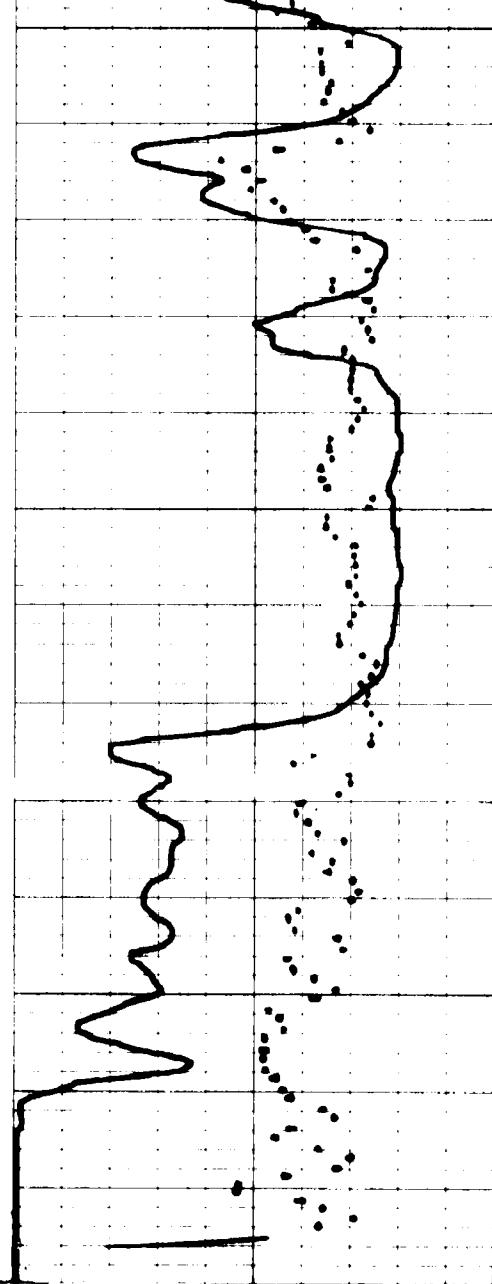


6600





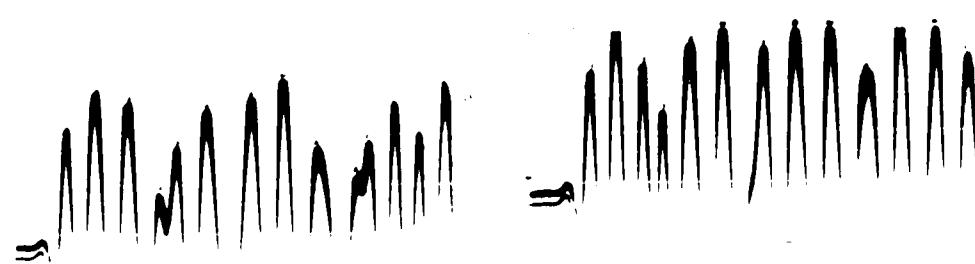
BEFORE SURVEY



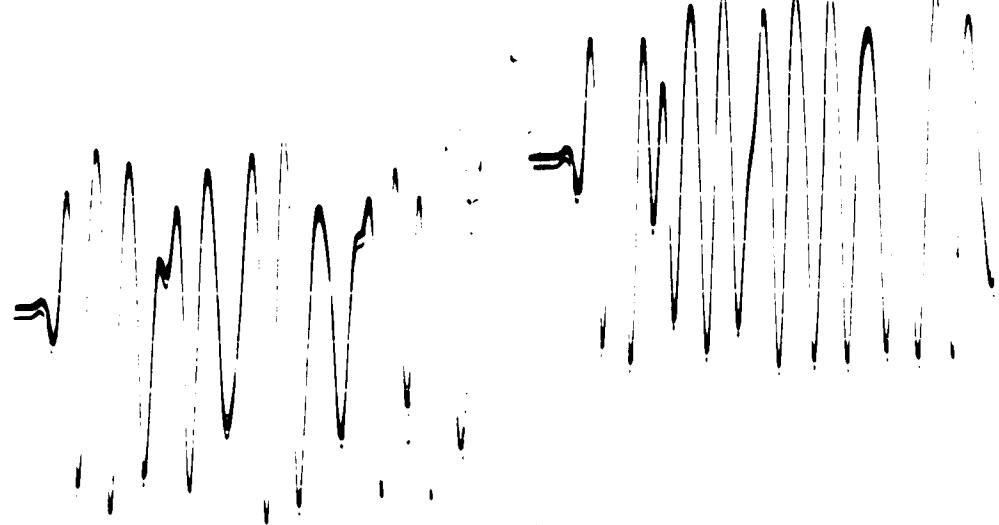
AFTER SURVEY

—•— LOG

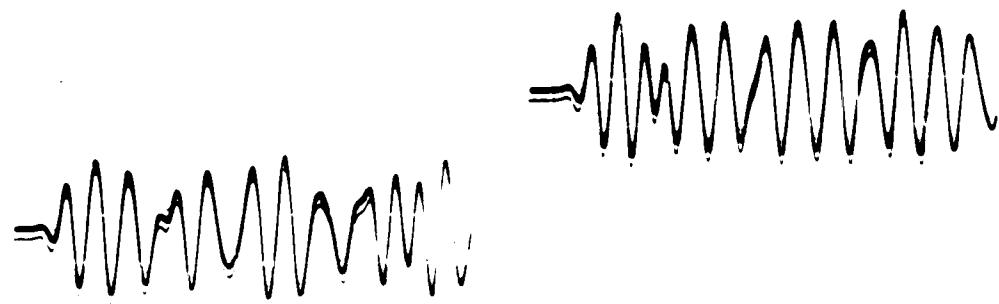
—•—



Z



TEST

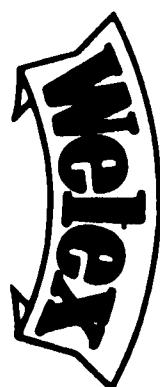


LTO



ATTACHMENT NO. 8

OPEN HOLE LOG FOR THE UIC WELL



**COMPENSATED DENSITY
DUAL SPACED NEUTRON
LOG**

COMPANY COORS ENERGY COMPANY		WELL UTE TRIBAL #2-9		FIELD WILDCAT	
FIELD DUCHESNE		County UTAH		COUNTY DUCHESNE STATE UTAH	
Sec.	9	Two	55	Rge	3N
Permanent Datum	GROUND LEVEL		Elev.	6008'	
Log Measured From	KELLY BUSHING		11'	ft. Above Perm. Datum	
Drilling Measured From	KELLY BUSHING			Elev.:	K. B. 6019'
Date	9-18-83			D. F.	
Run No.	ONE			G.	6008'
Depth—Driller	6770'			Other Services:	DGFL CAL
Depth—Welex	6748'				
Burn. Log Inter.	6746'				
Top Log Inter.	406'				
Casing—Driller	8 5/8 @ 420'		•		
Casing—Welex	406'		•		
Bit Size	7 7/8"		•		
Type Fluid in Hole	1.1% KCL				
Dens. & Visc.	8.6	27			
pH & Fluid Loss	10.5	-- ml	ml	ml	ml
Source of Sample	MUD TANK				
R _m @ Meas. Temp.	.20	@ 70 °F	•	•	•
R _m @ Meas. Temp.	-----	@ -- °F	•	•	•
R _m @ Meas. Temp.	-----	@ -- °F	•	•	•
Source R _m R _{nc}	-----	1	-----	-----	-----
R _m @ BHT	.091	@ 164°F	•	•	•
Time Since Circ.	10 HOURS		•	•	•
Max. Rec. Temp.	164 °F @	6761'	°F @		
Equip. I Location	2883 VERNAL				
Recorded By	P. RECKS				
Witnessed By	GANDERA				

Fold Here

GAMMA RAY		EQUIPMENT DATA		NEUTRON	
		DENSITY			
Run No.	ONE	Run No.	ONE	Run No.	ONE
Tool Model No.	265	Log Type	GAMMA-G	Log Type	NEUTRON-N
Diameter	3 3/8"	Tool Model No.	125	Tool Model No.	265
Detector Model No.	102A TY II	Diameter	4"	Diameter	3 3/8"
Type	SCINT	Detector Model No.	127B	Detector Model No.	260-A
Length	4"	Type	SCINT-Bi	Type	He3-He3
Distance to Source	20 ft	Length	12"	Length	

Distance to Source	29.5	Length	12	Length	12
GENERAL		Source Model No.	DCS	Source Model No.	DSN
Hoist Truck No.	2883	Serial No.	150	Serial No.	4931 NE
Instrument Truck No.	2883	Spacing	---	Spacing	---
Tool Serial No.	P-72076	Type	Cs-137	Type	AmBe
	DSN-102558	Strength	500 mci	Strength	20 cu

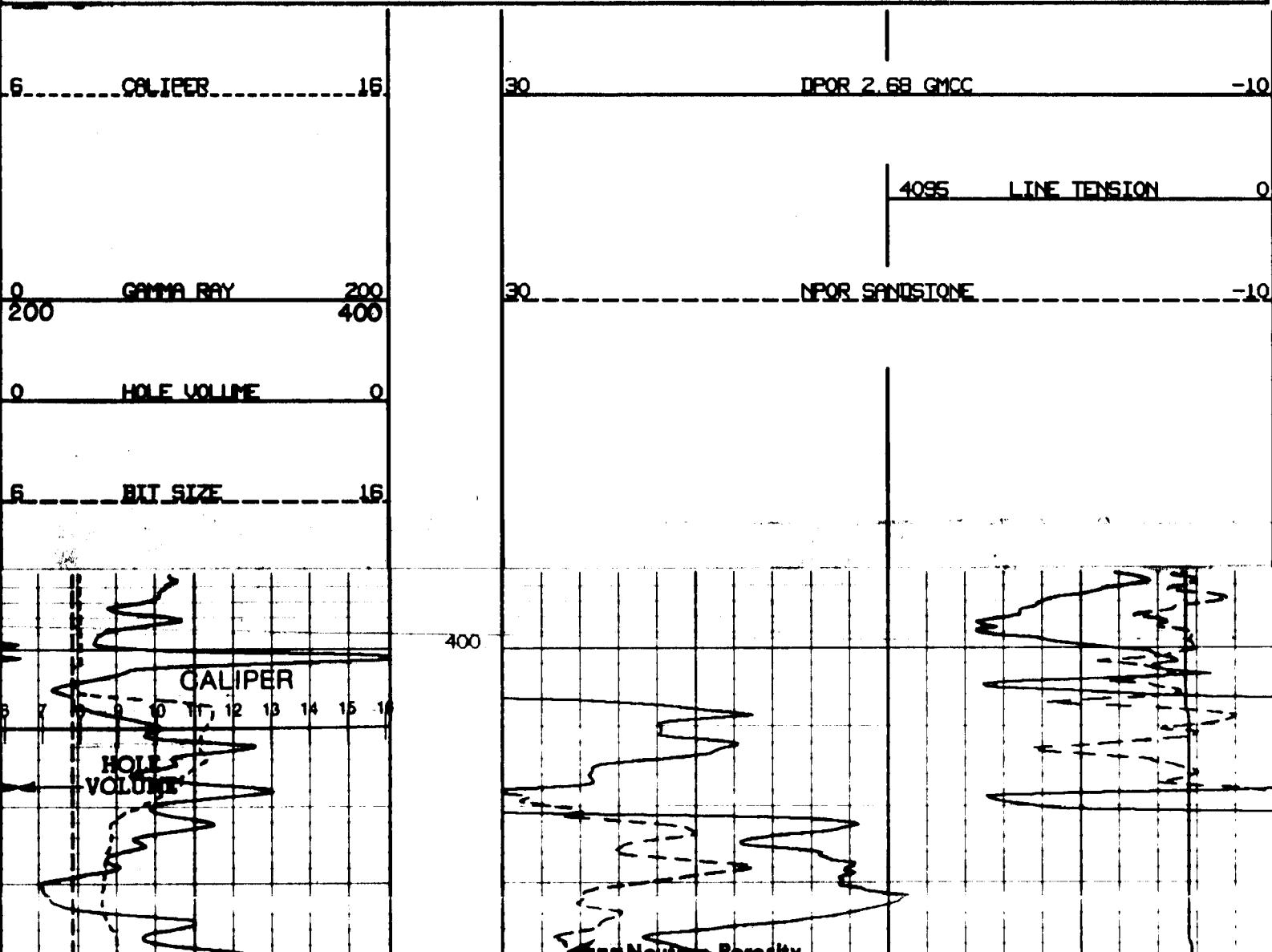
LOGGING DATA

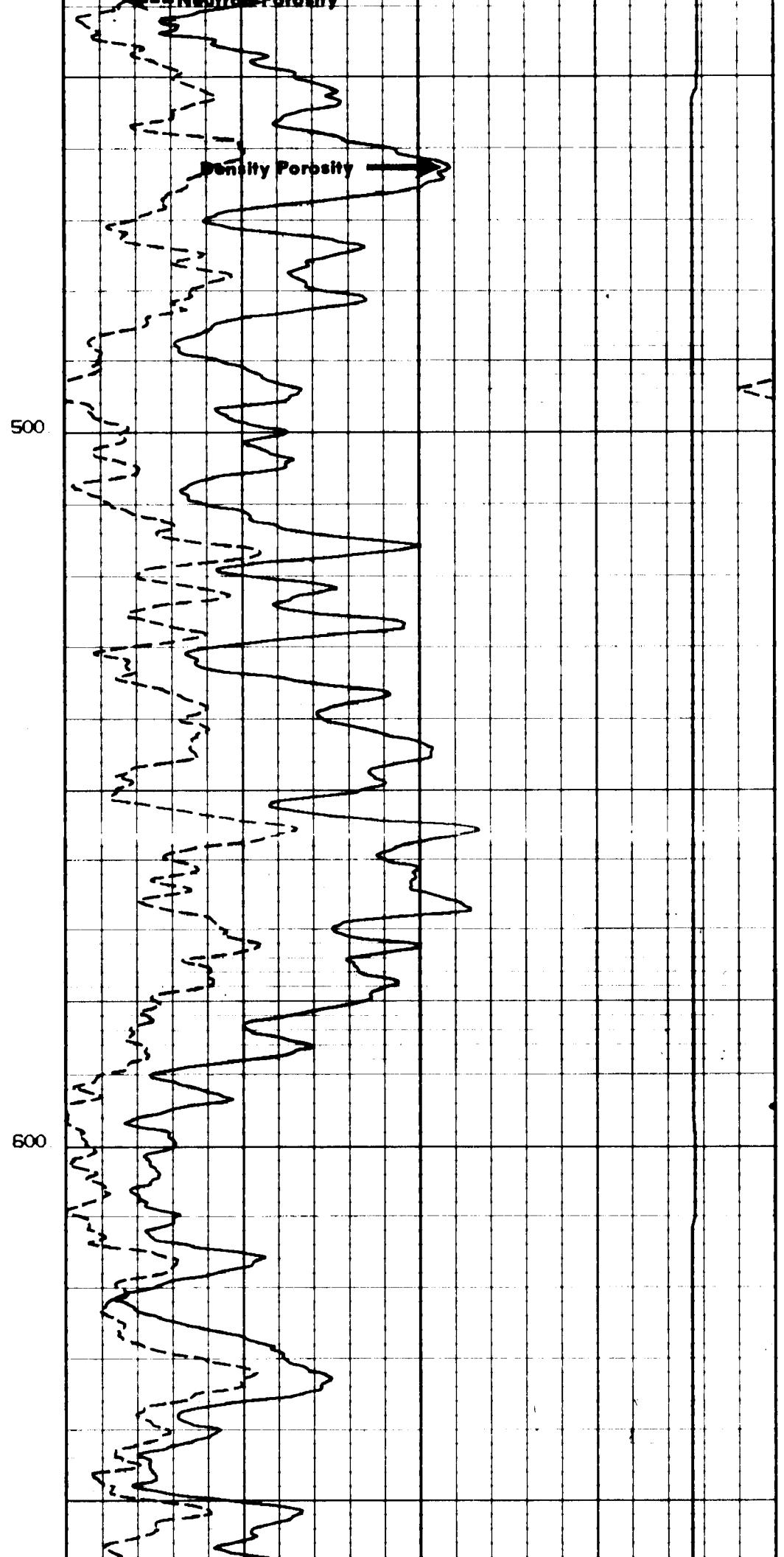
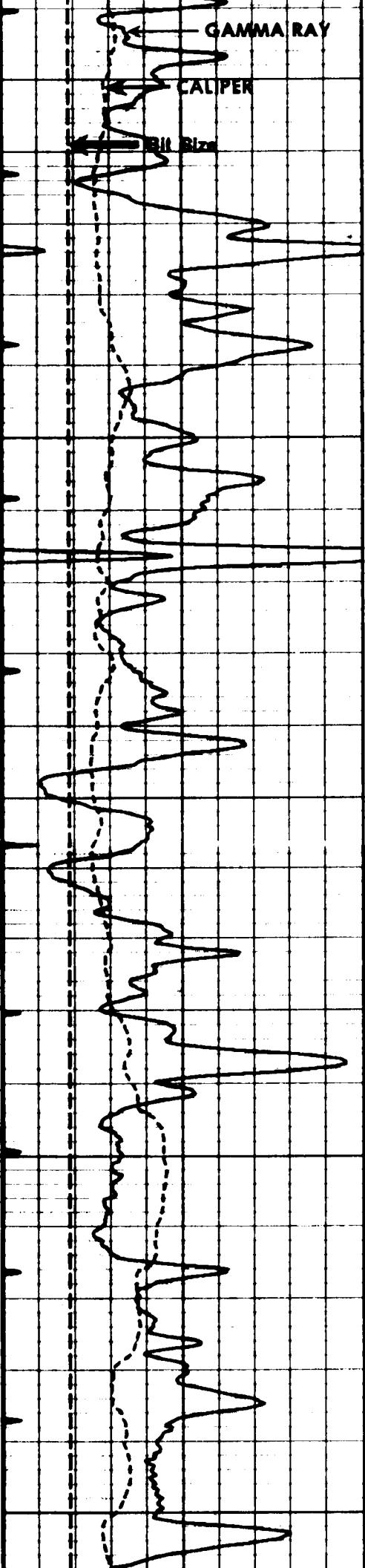
GENERAL			GAMMA RAY			DENSITY			NEUTRON		
Run No.	Depths		T.C. Sec.	Zero Div. L or R	G.R. Units per Log Div.	T.C. Sec.	Units per Log Div.	Units per Log Div.	T.C. Sec.	Zero Div. L or R	Units per Log Div.
	From	To									
ONE	6746'	406'	3	L	20	6	.05gmi/cc	2% Ø	2	---	2% Ø

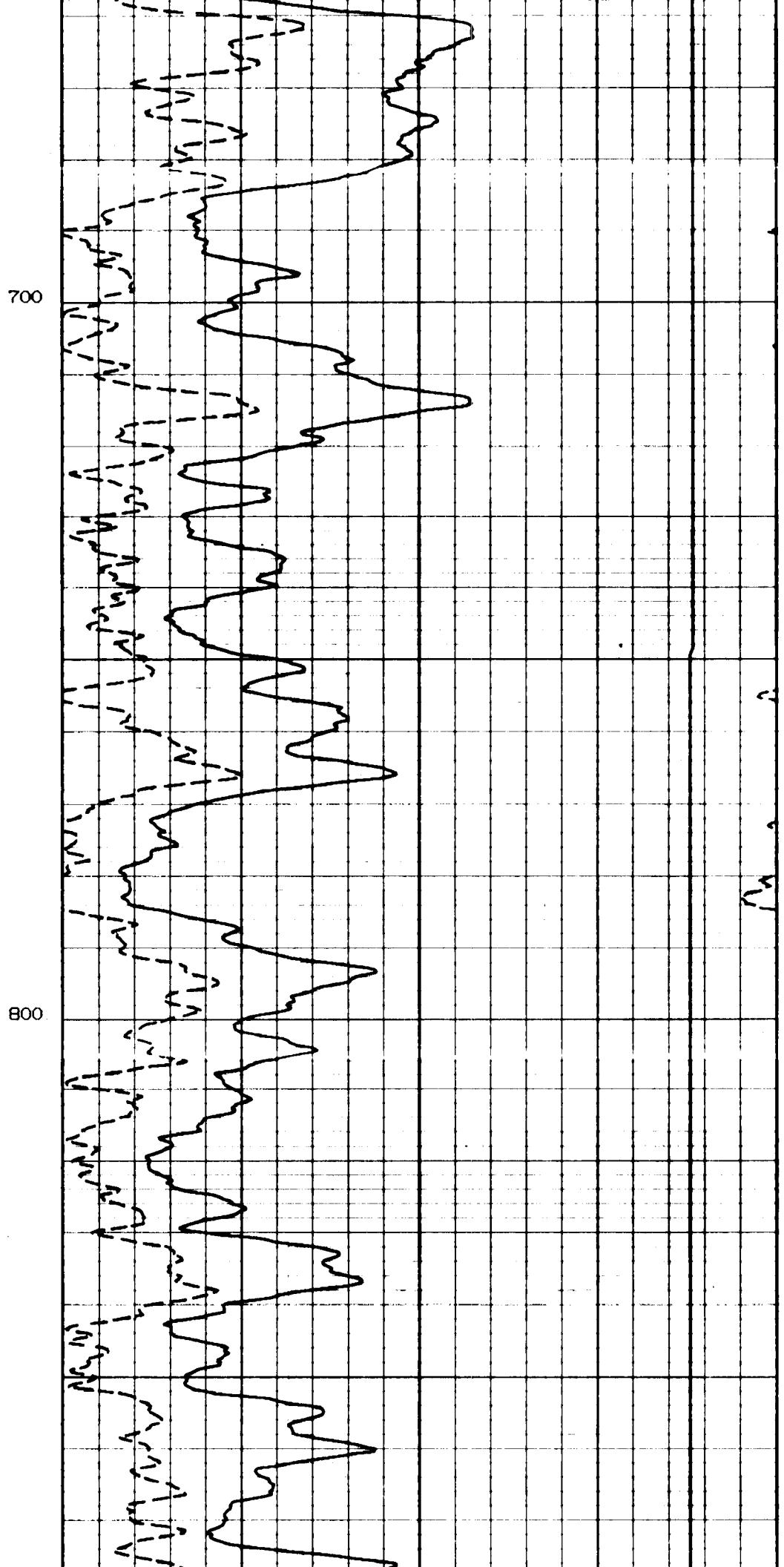
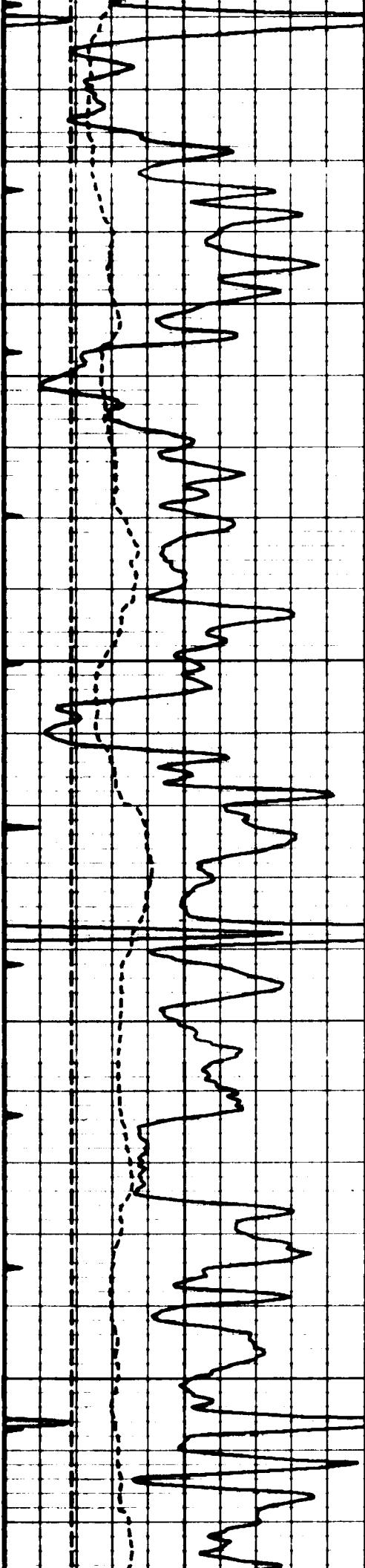
Reference Literature:

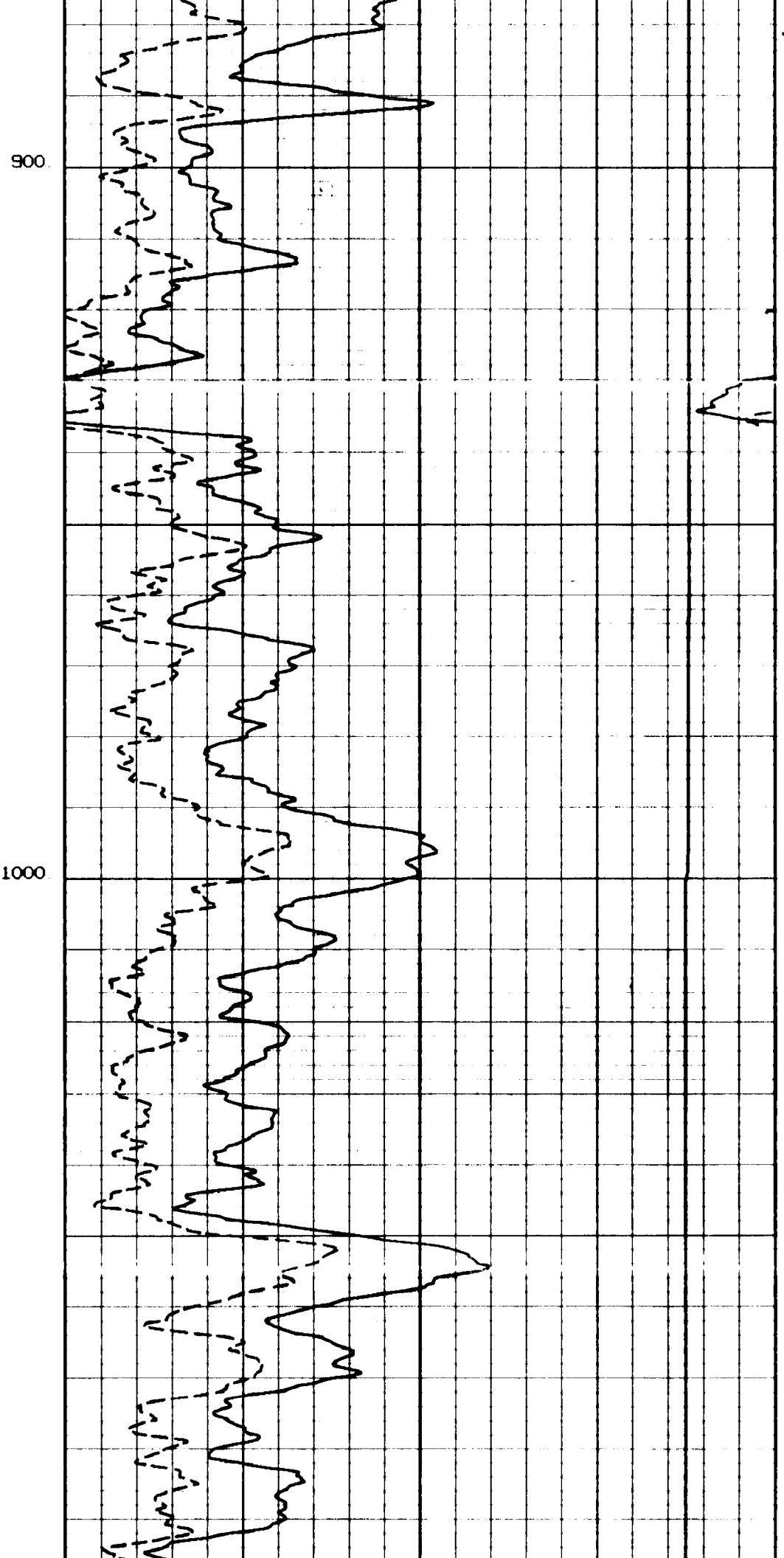
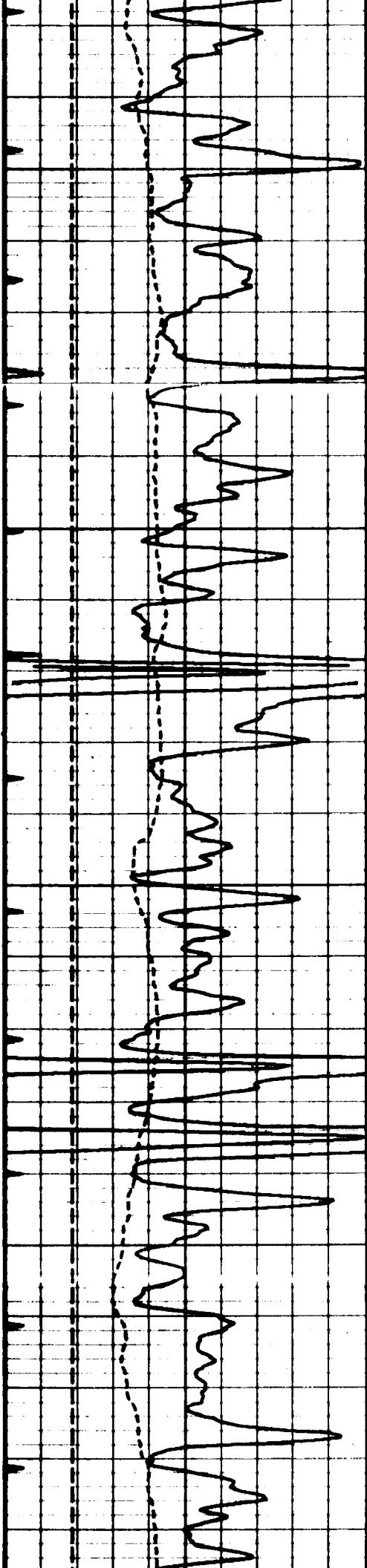
Service Ticket No. 139552 Remarks: VERSION 3.72

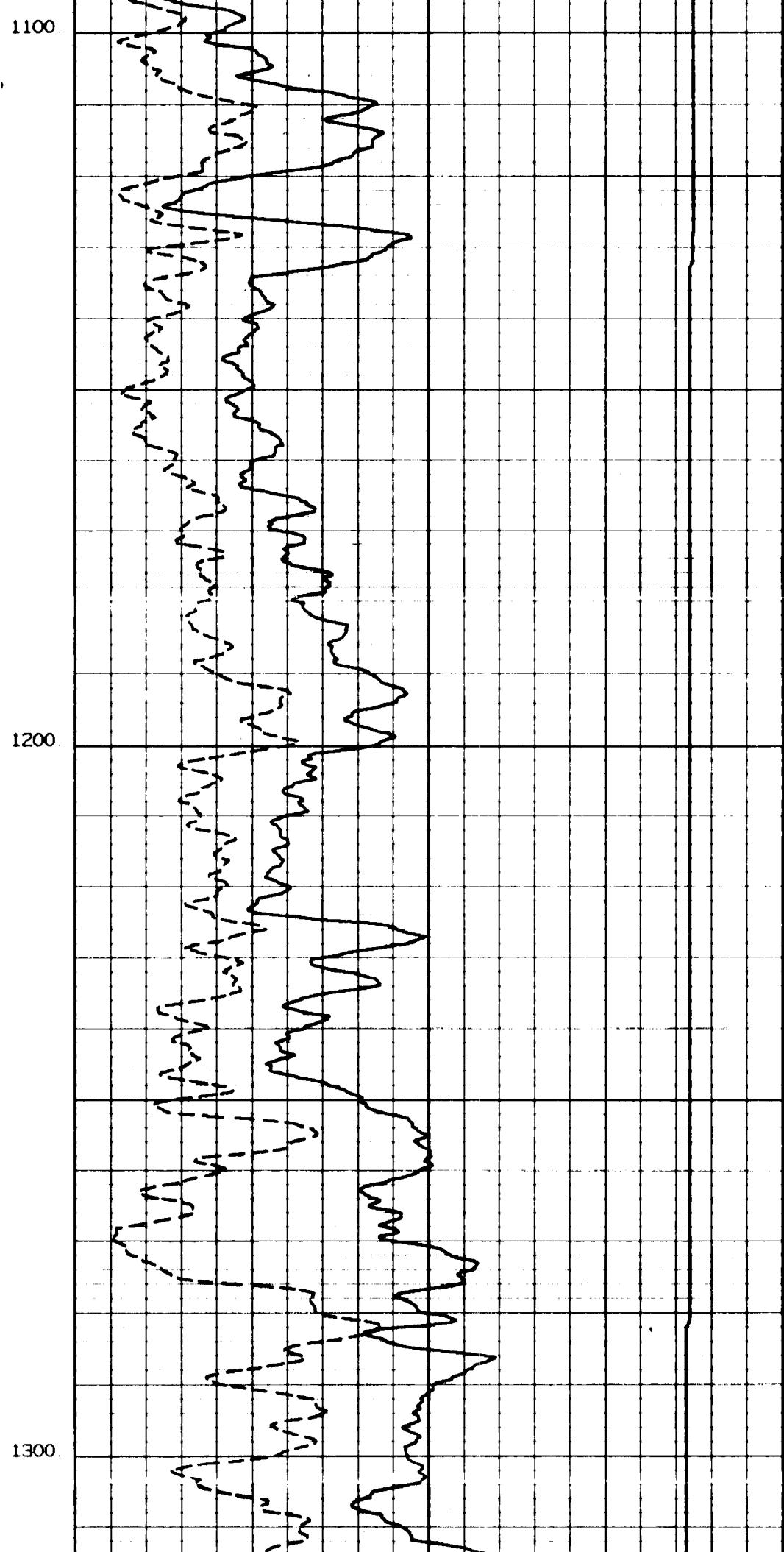
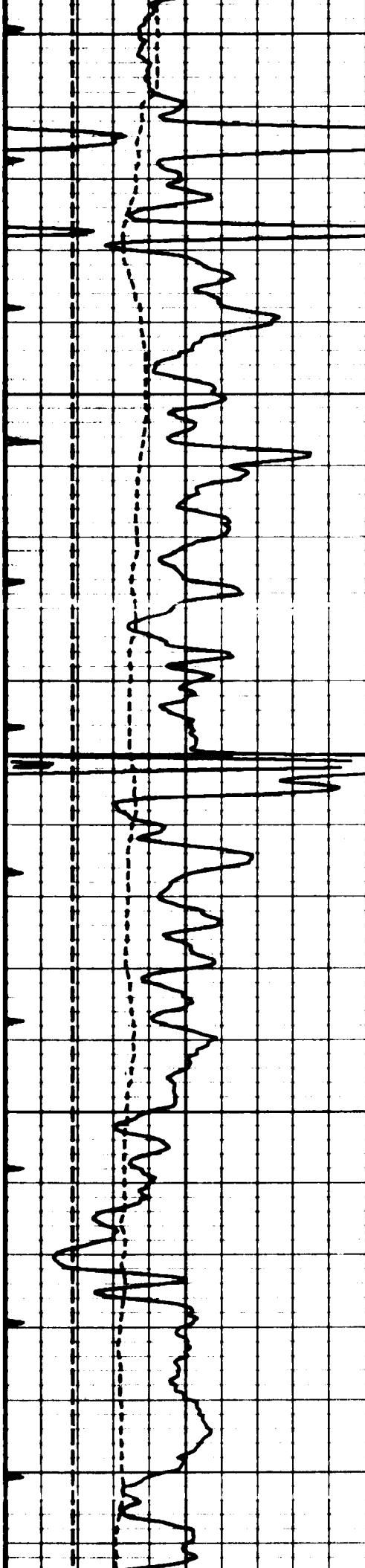
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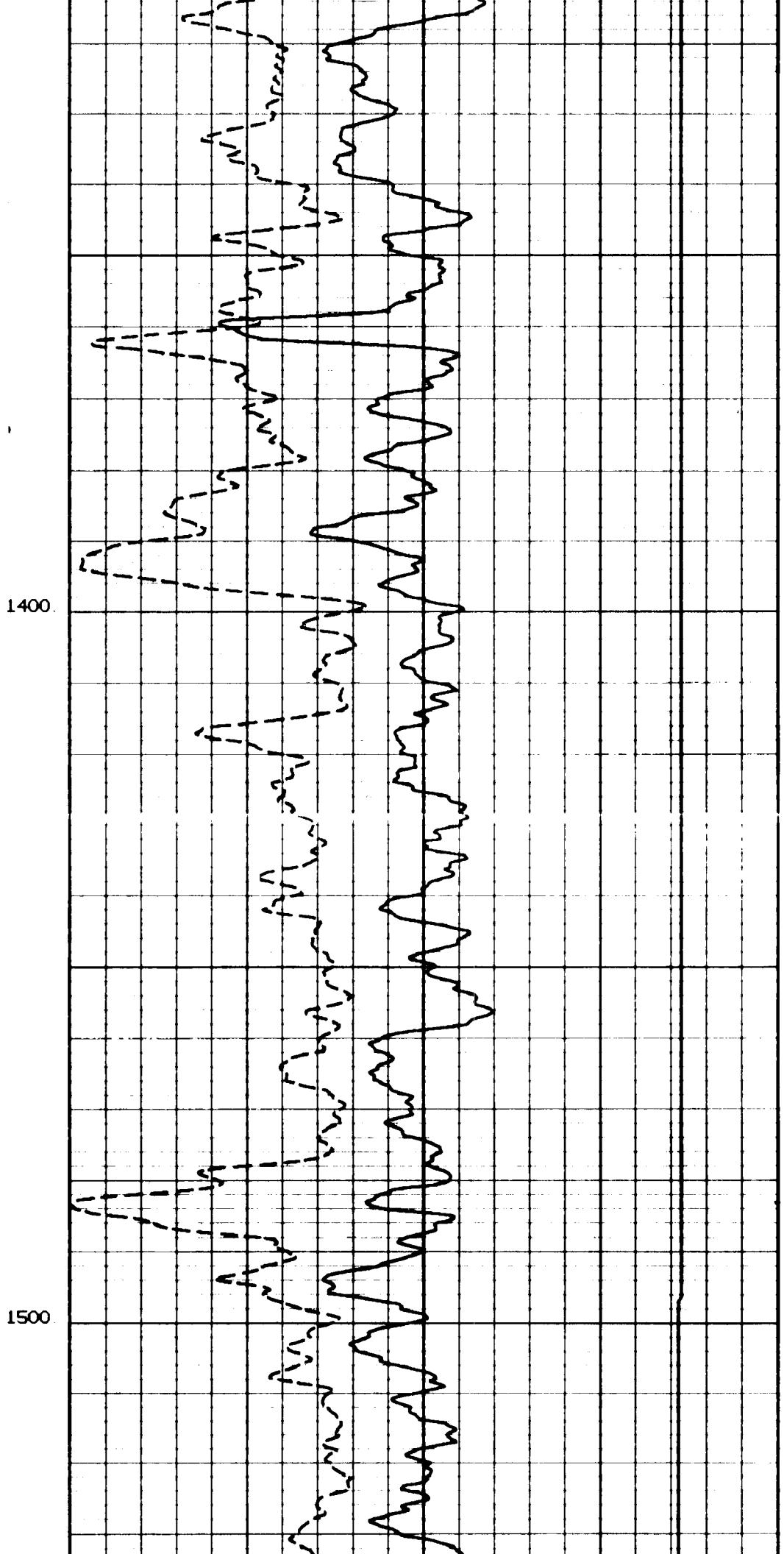
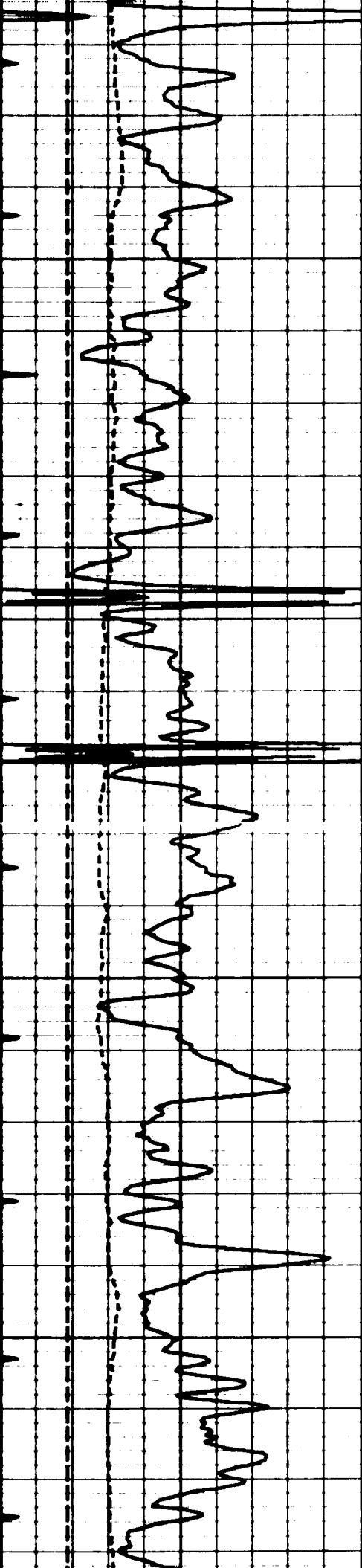


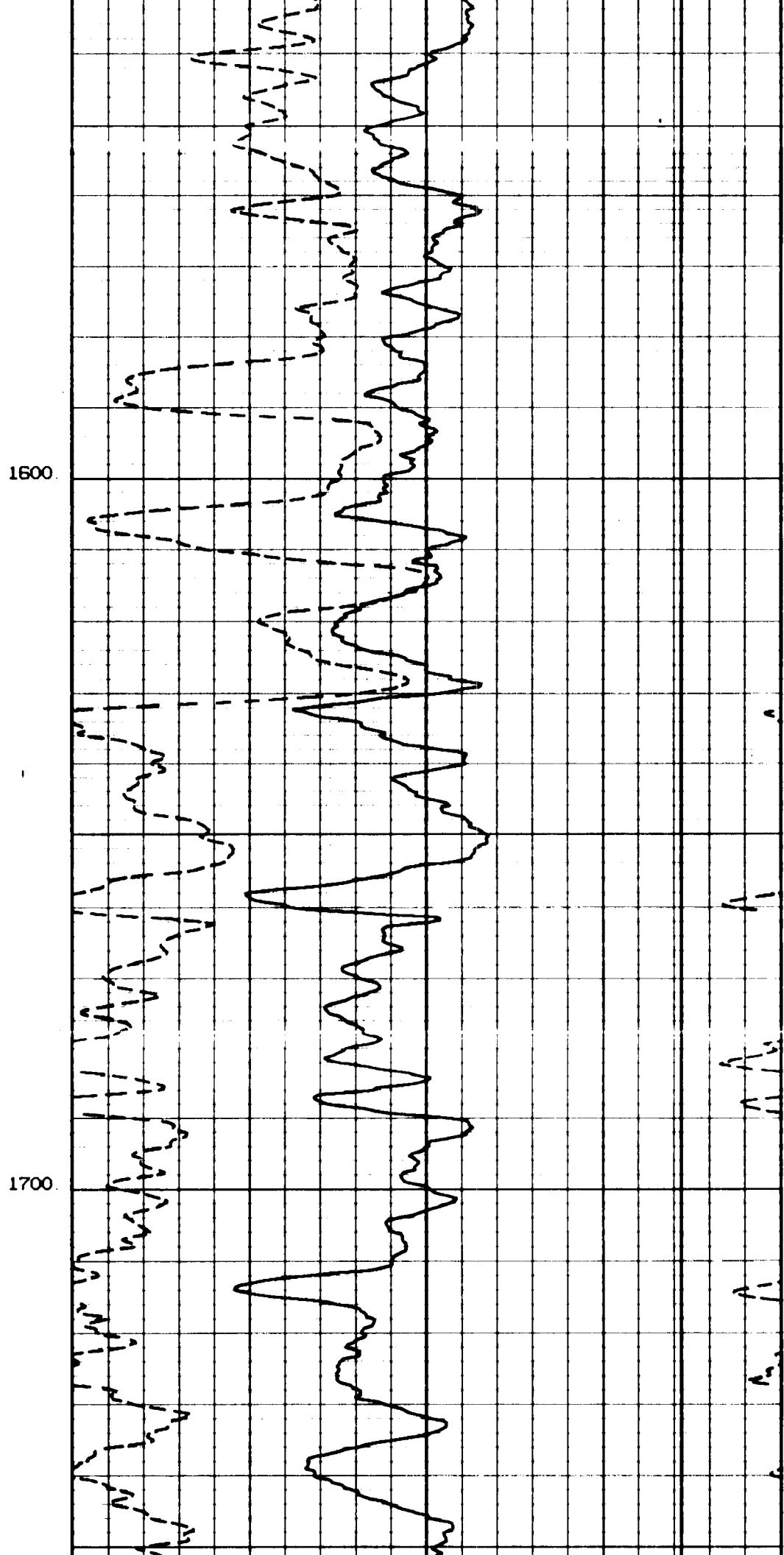
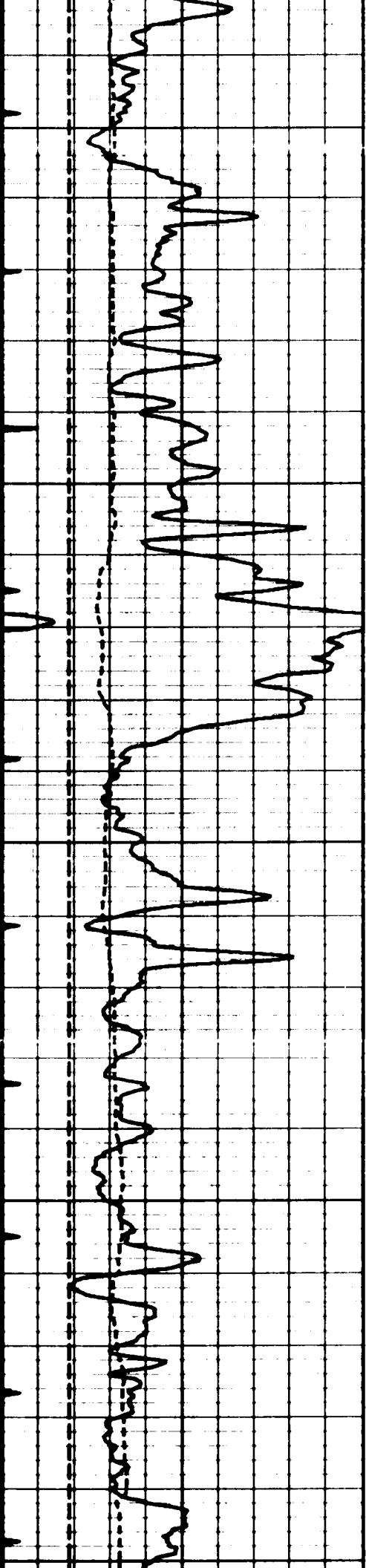


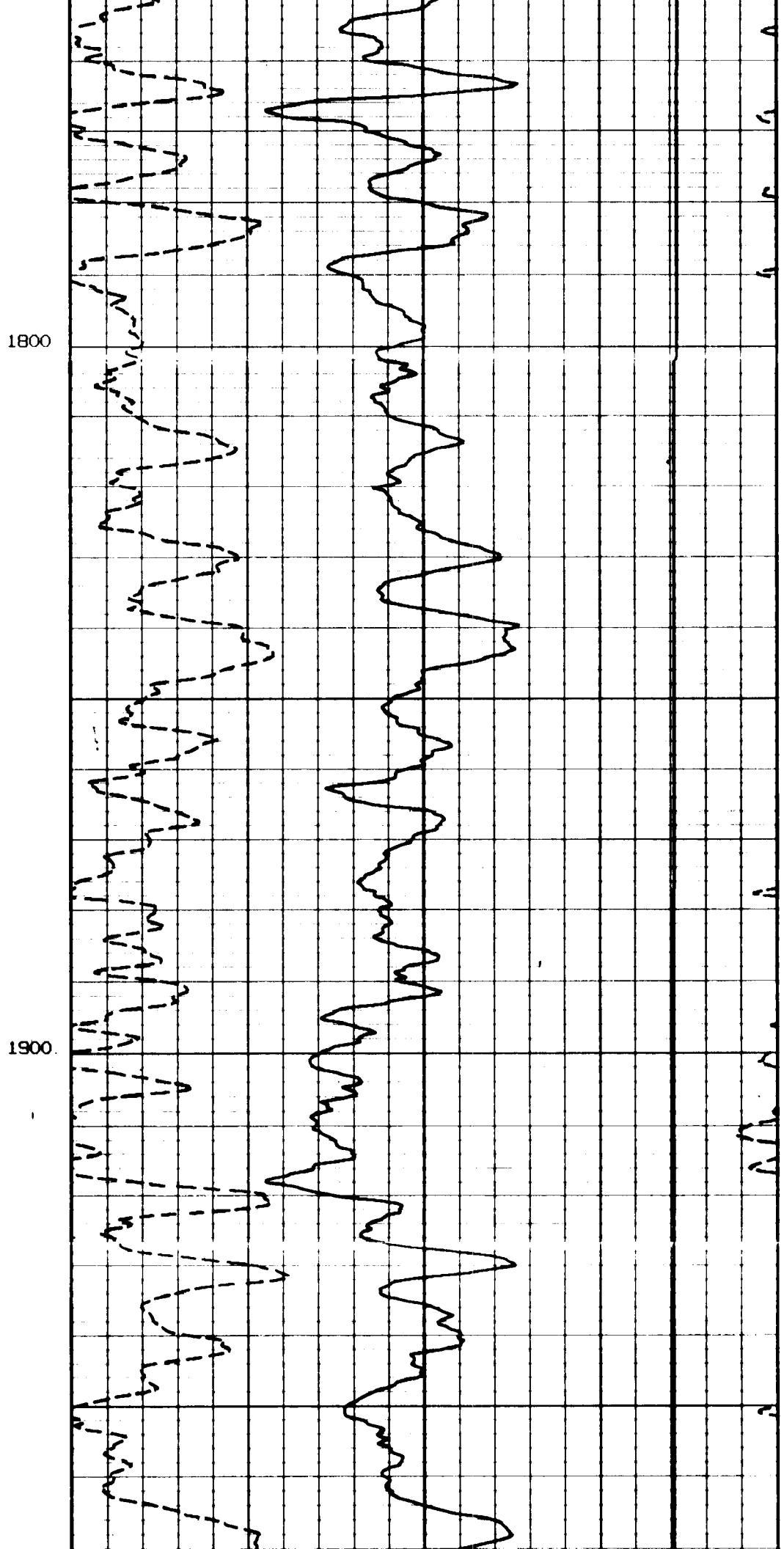
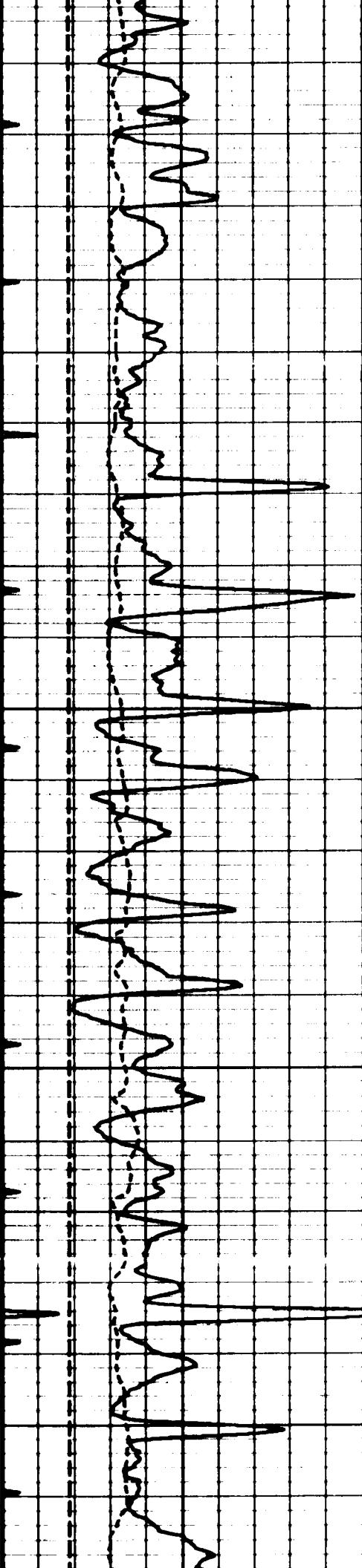


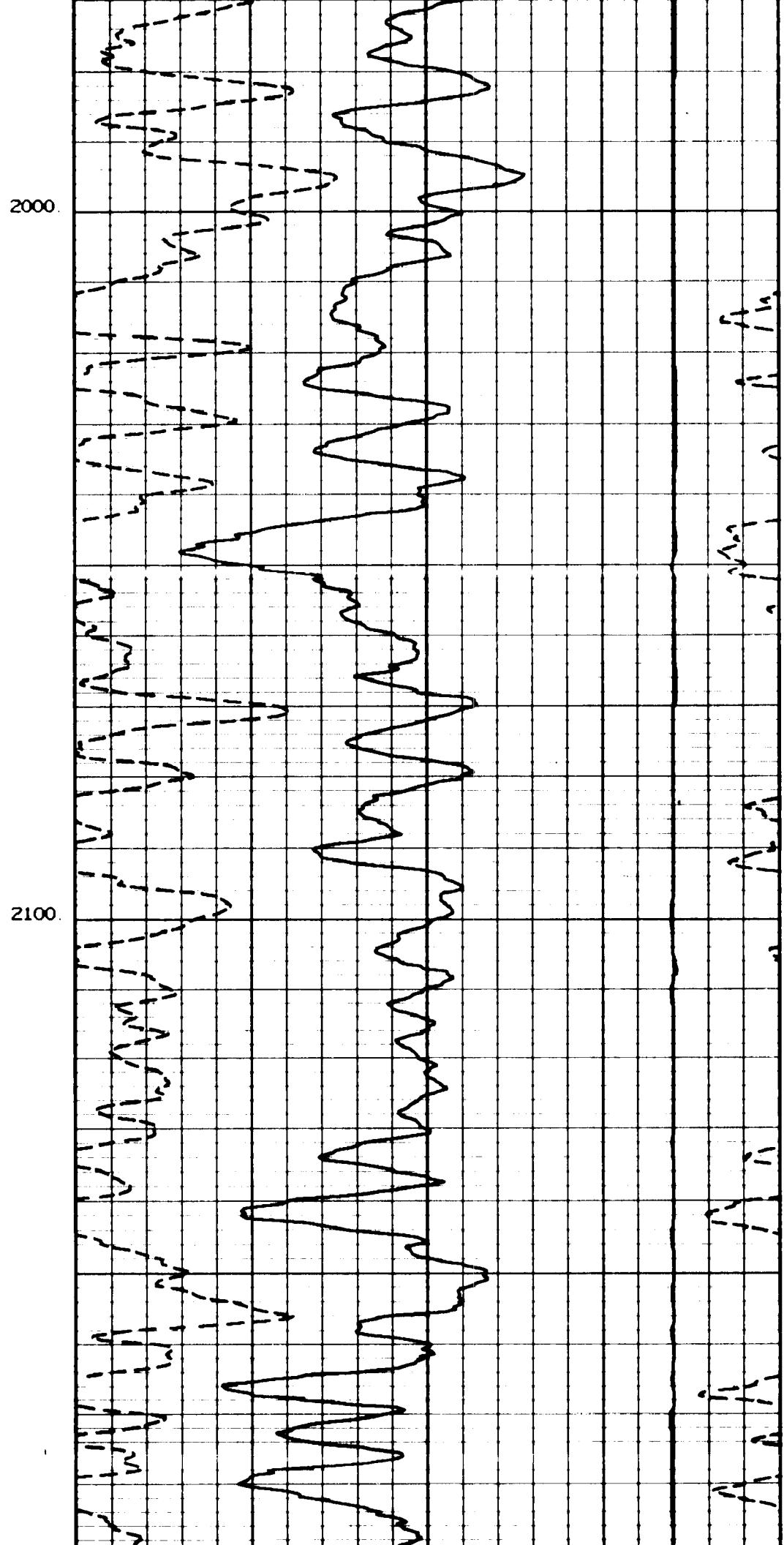
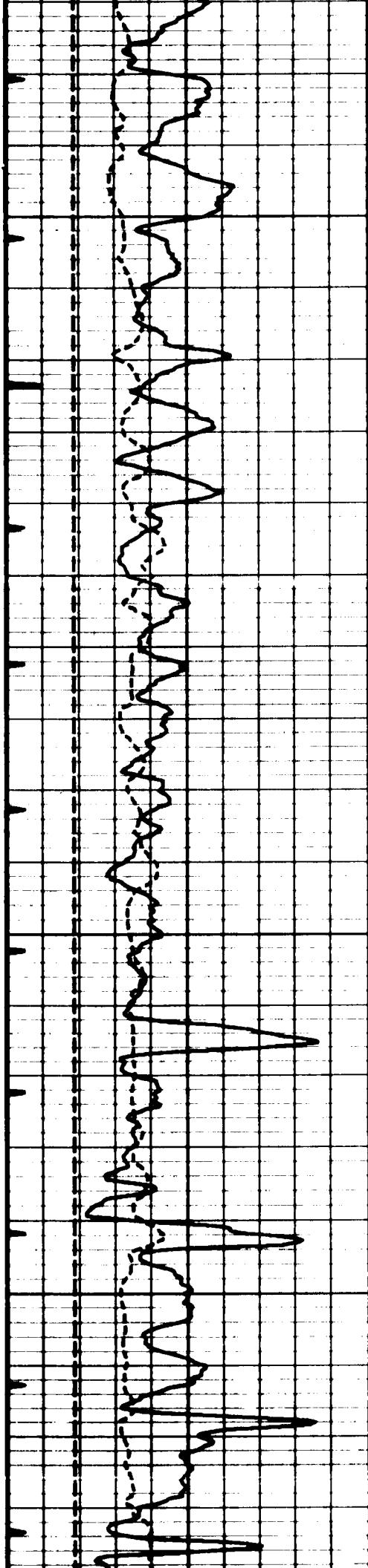


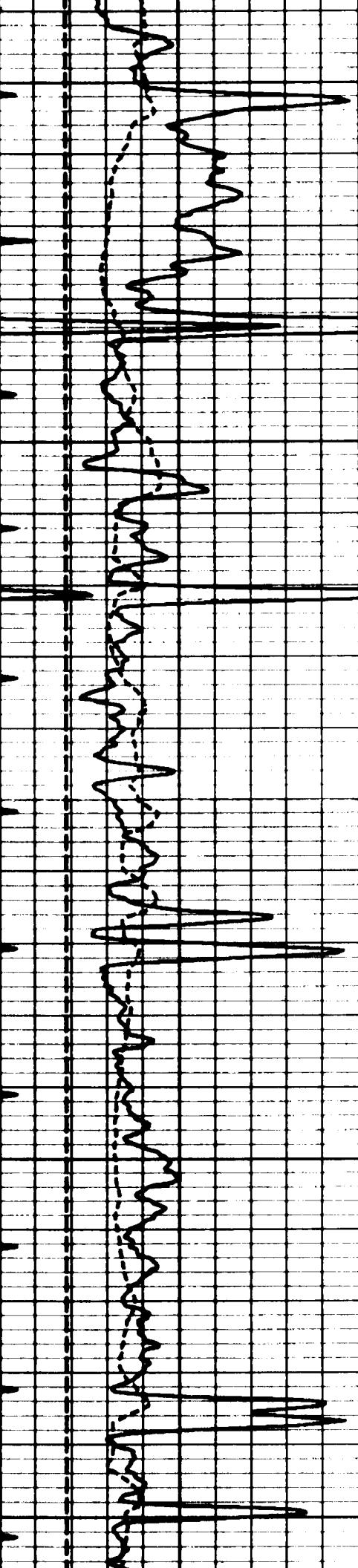




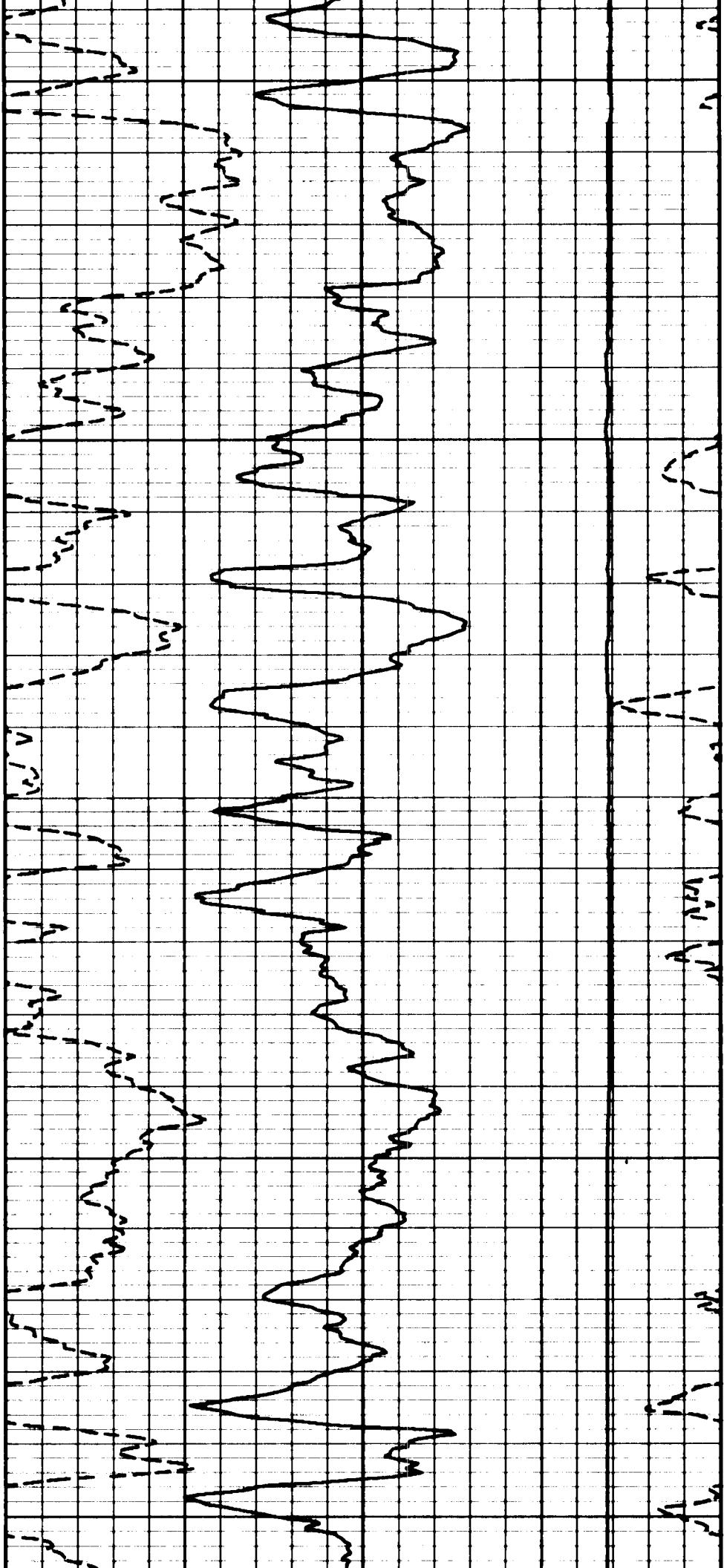






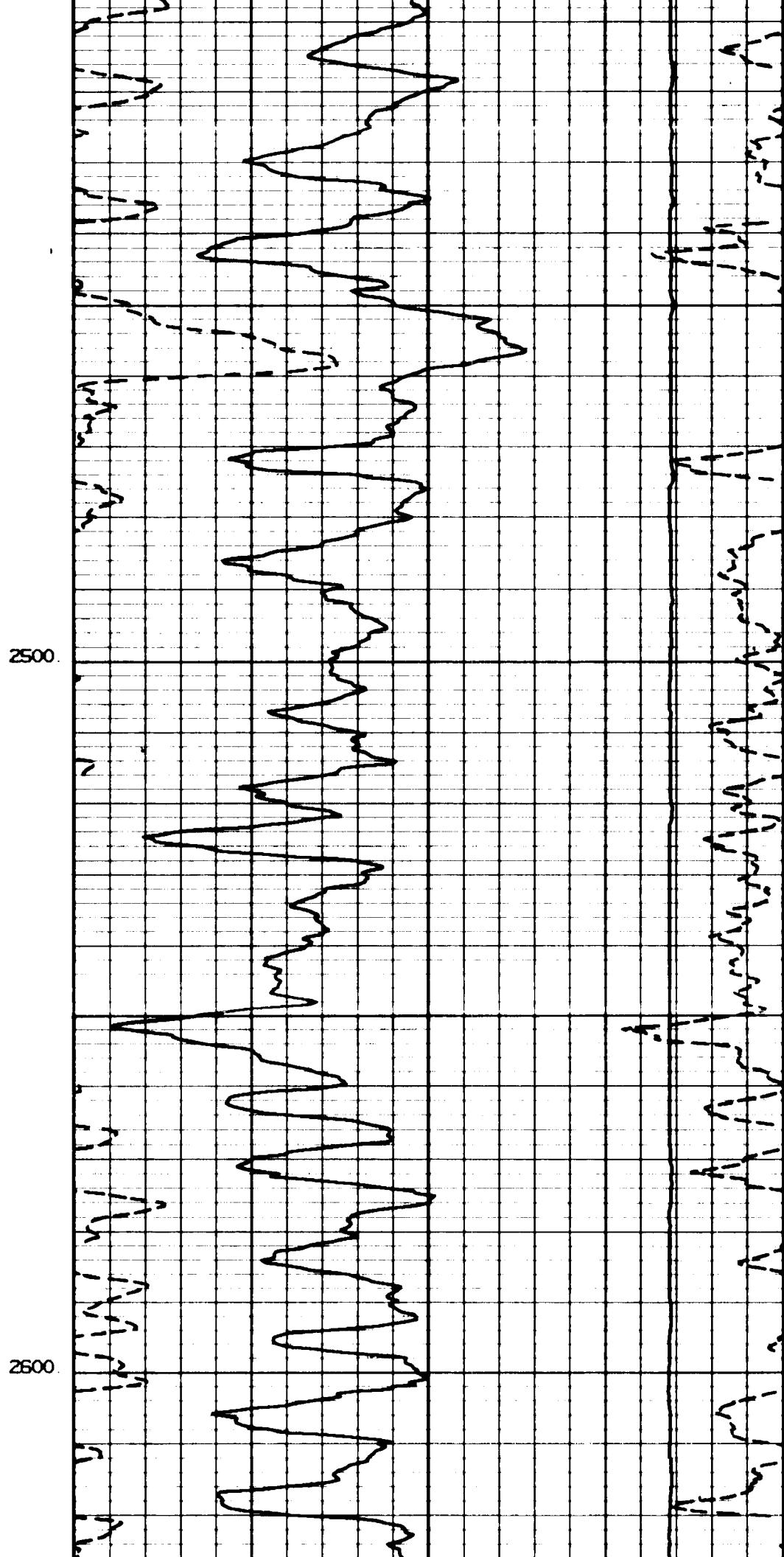
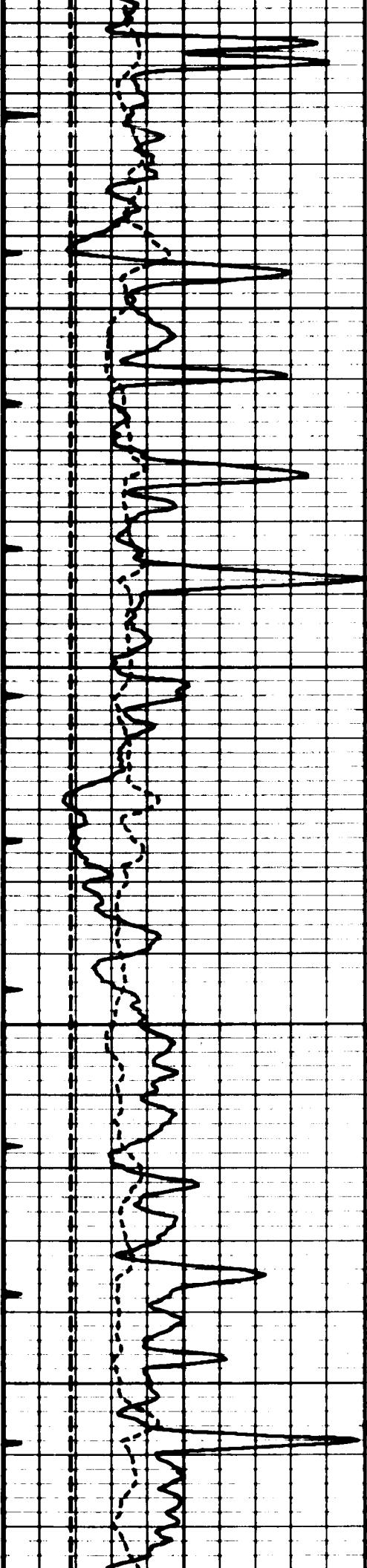


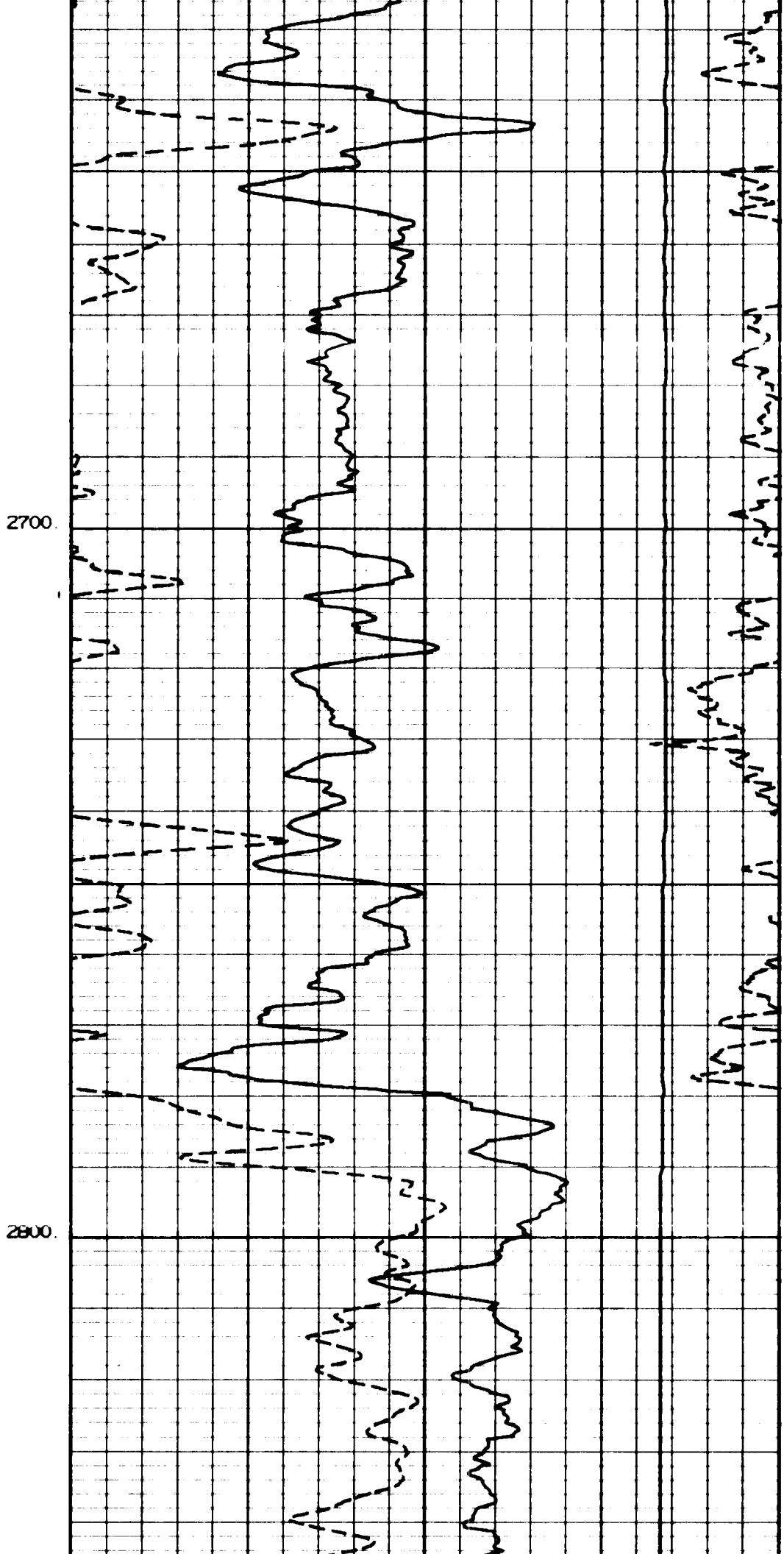
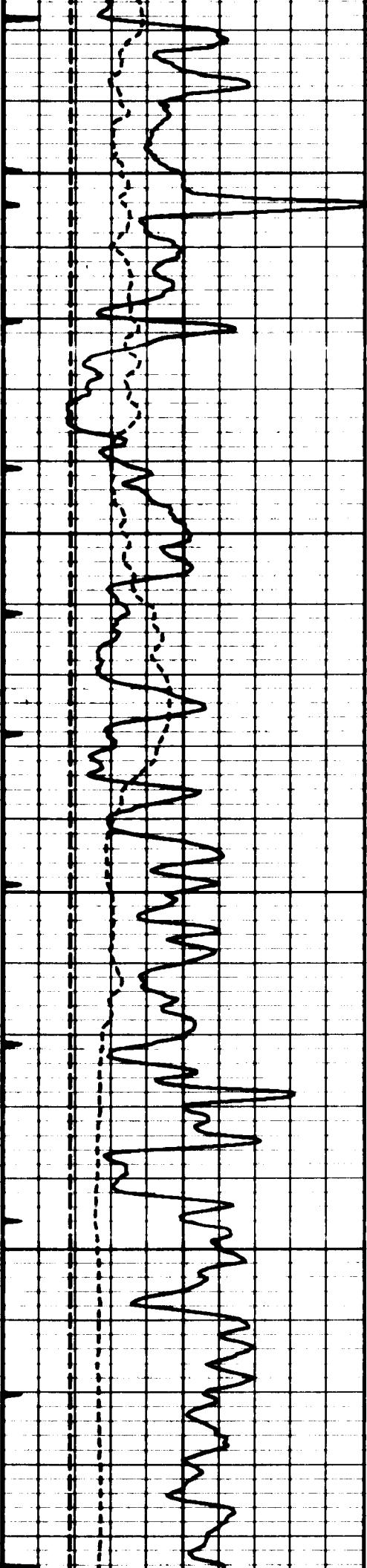
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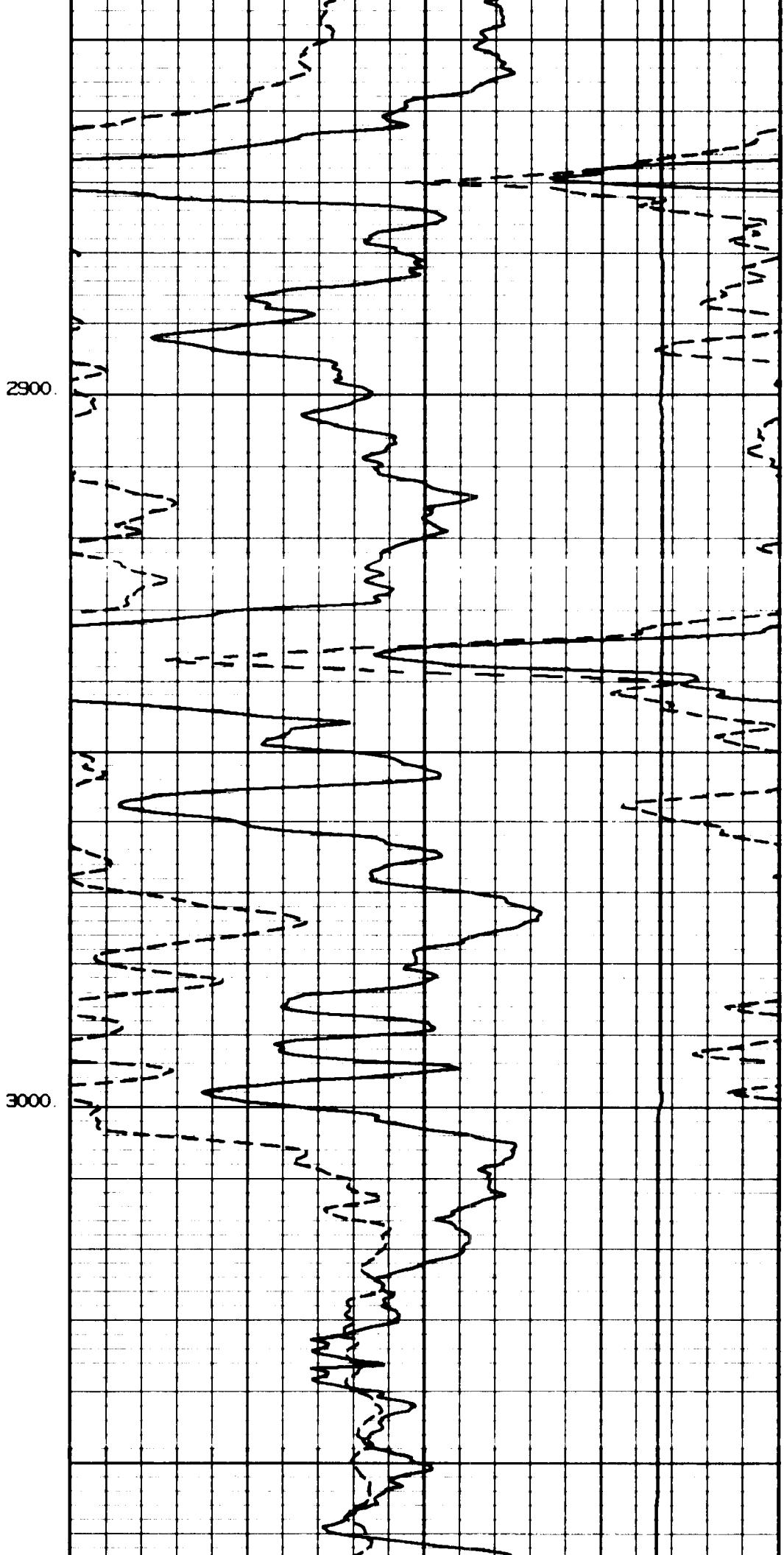
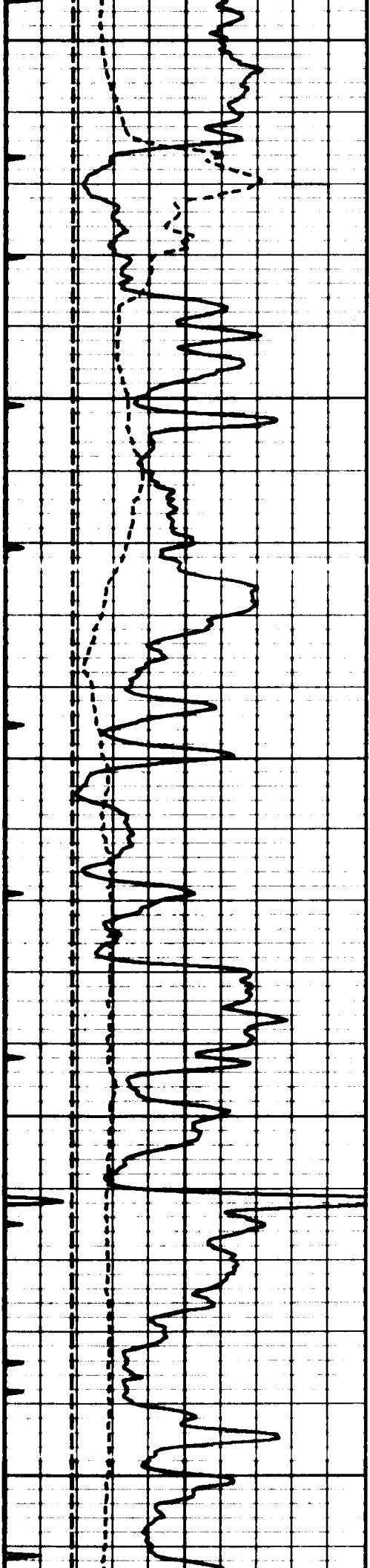


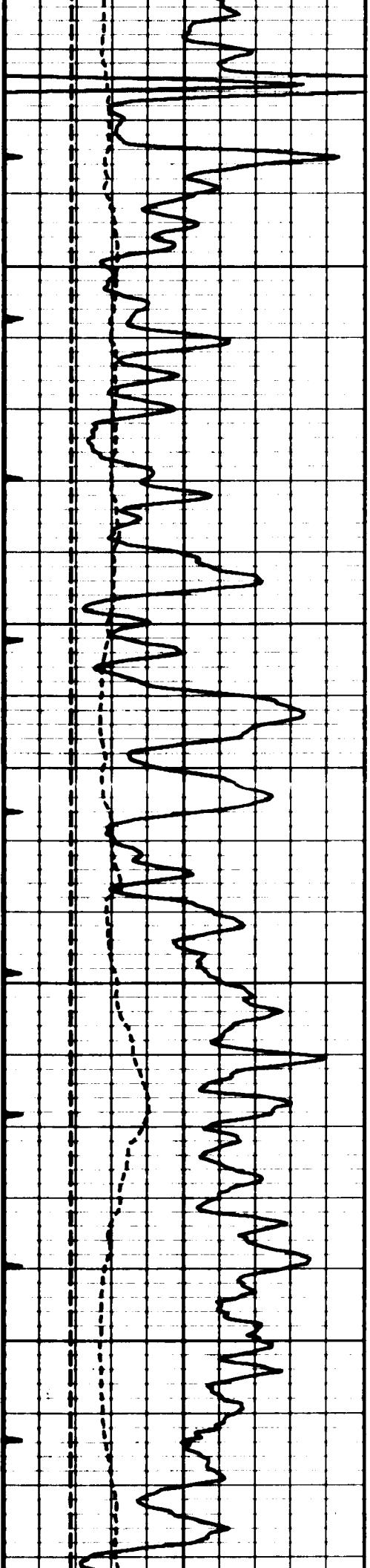
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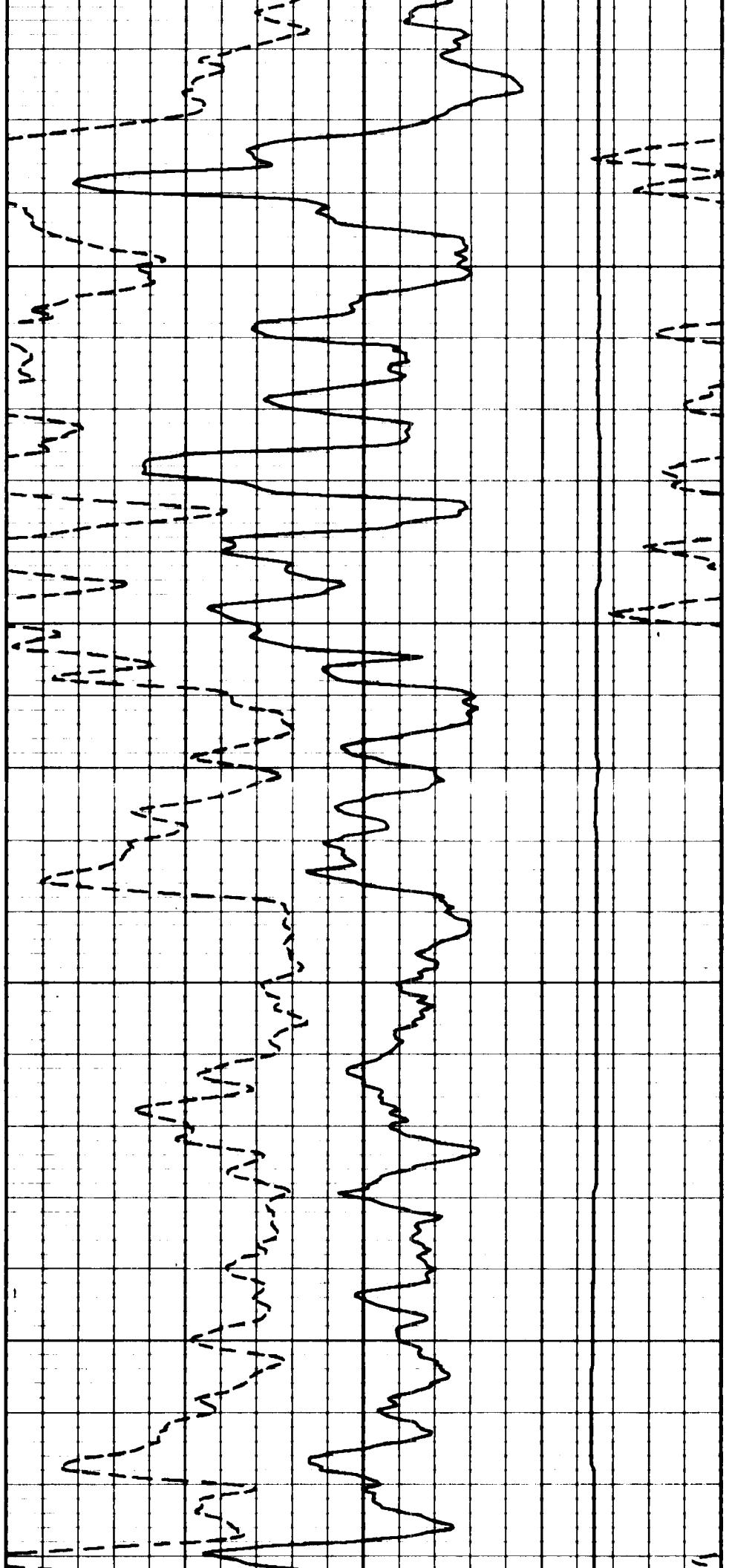




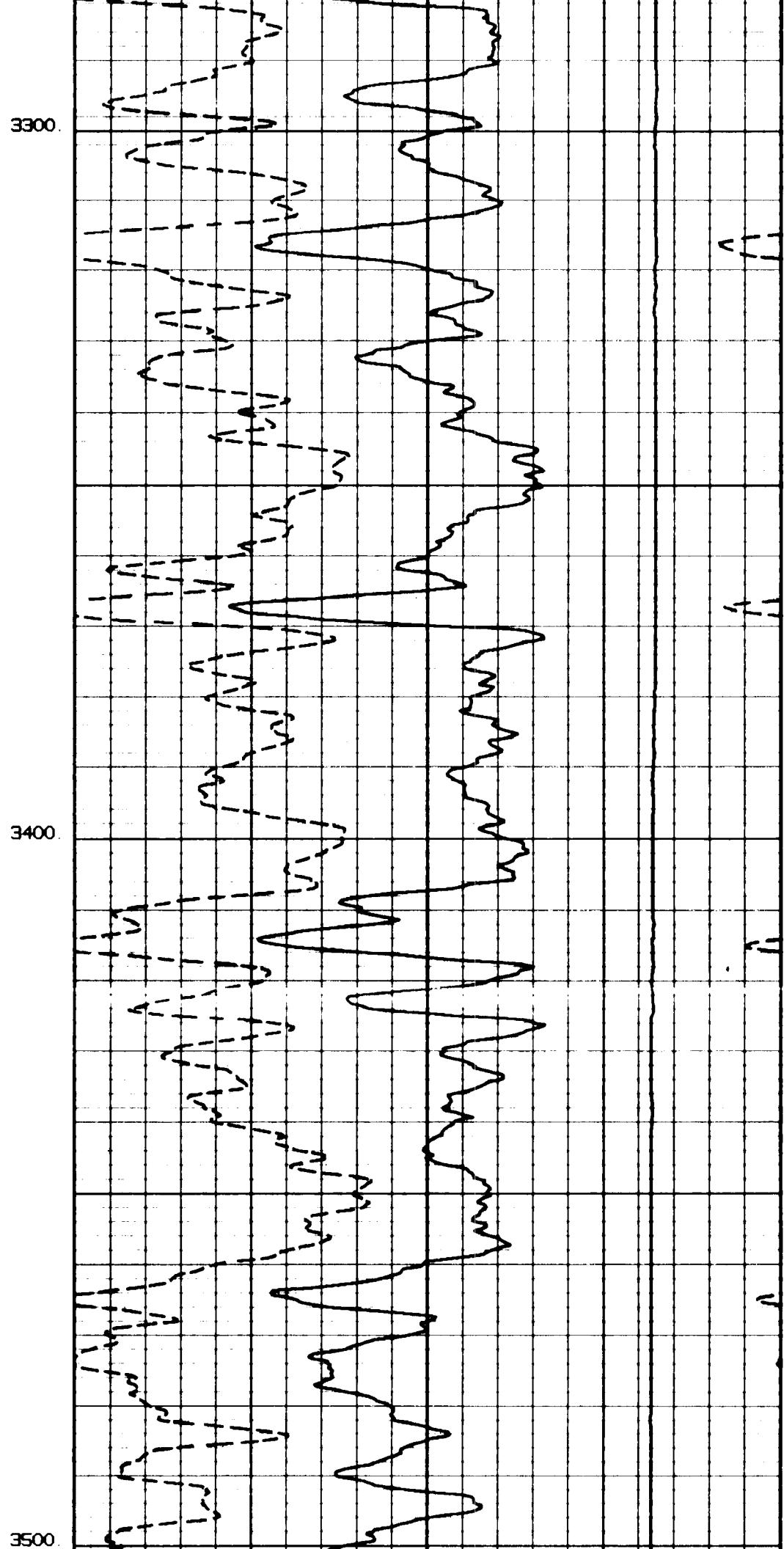
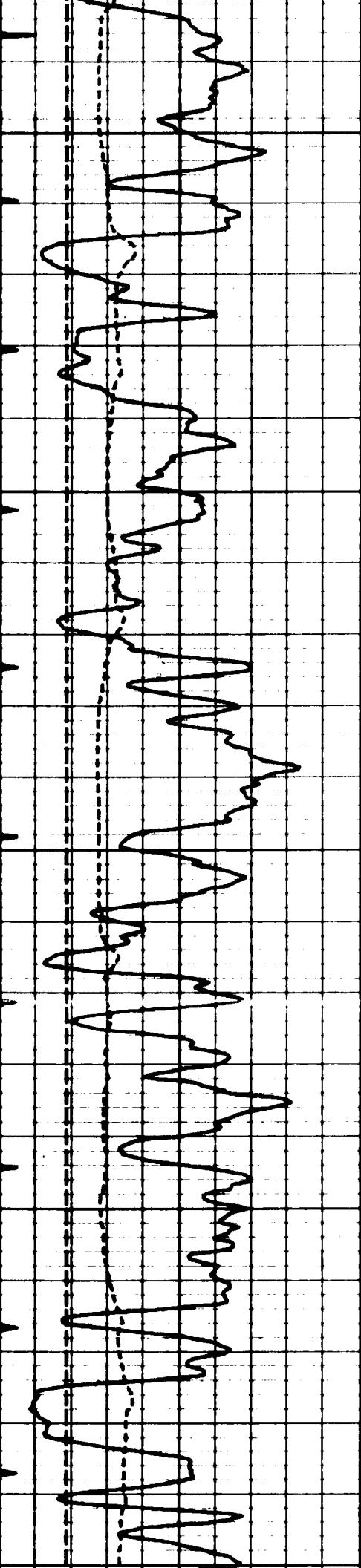


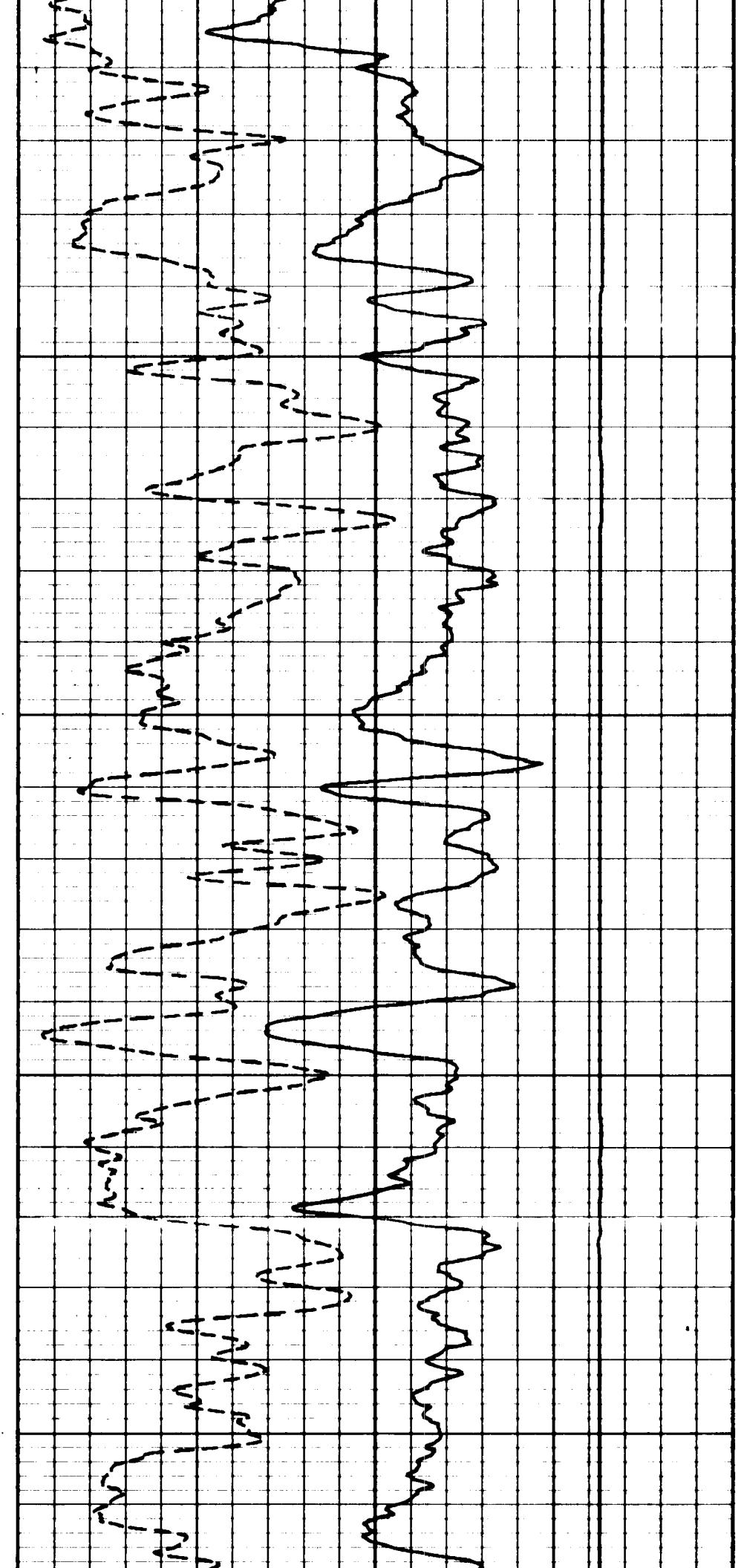


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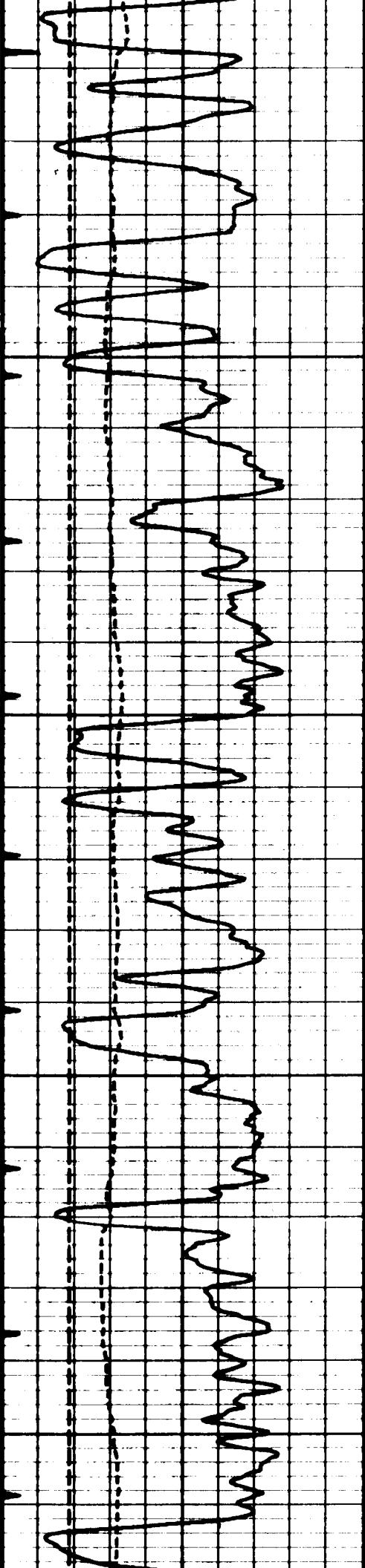




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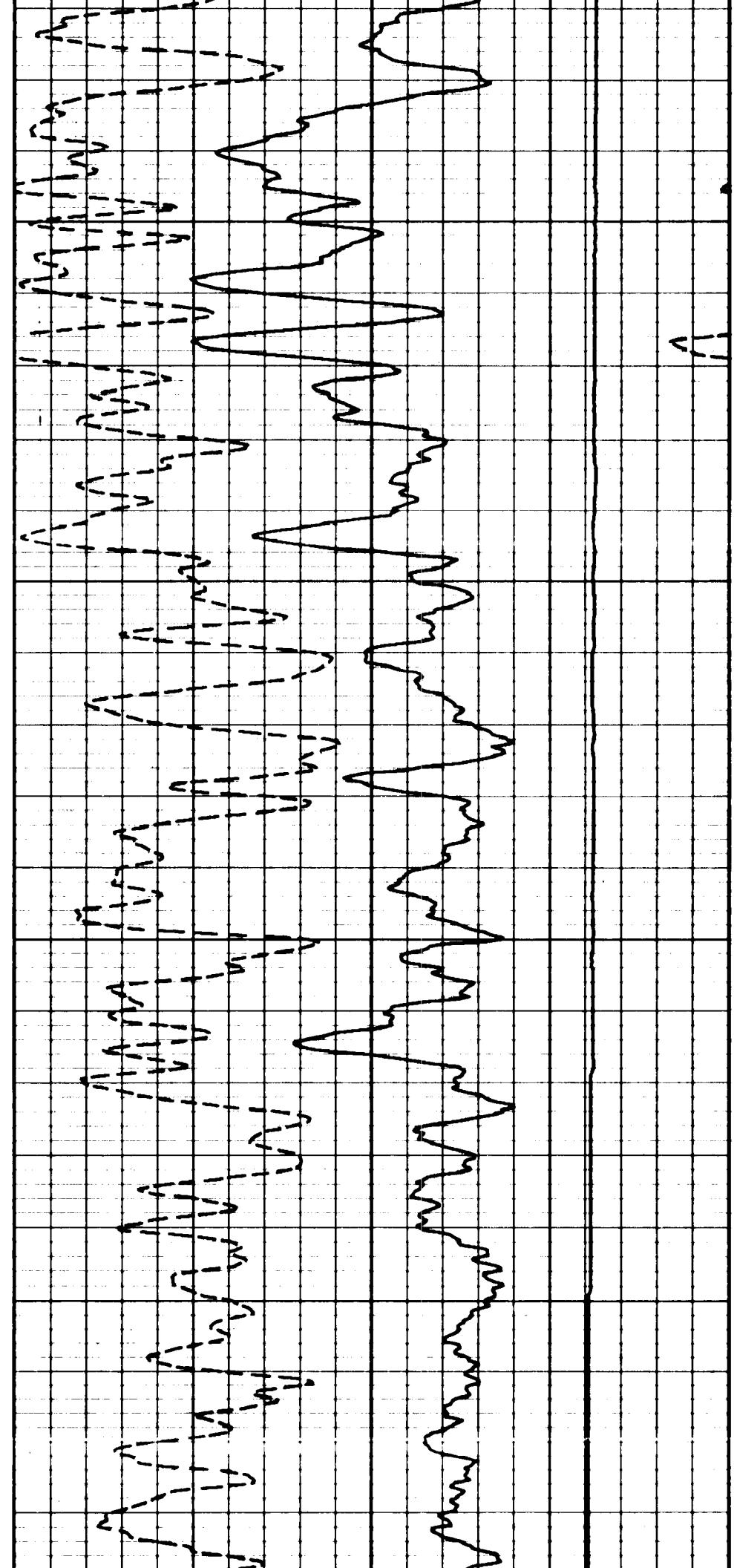
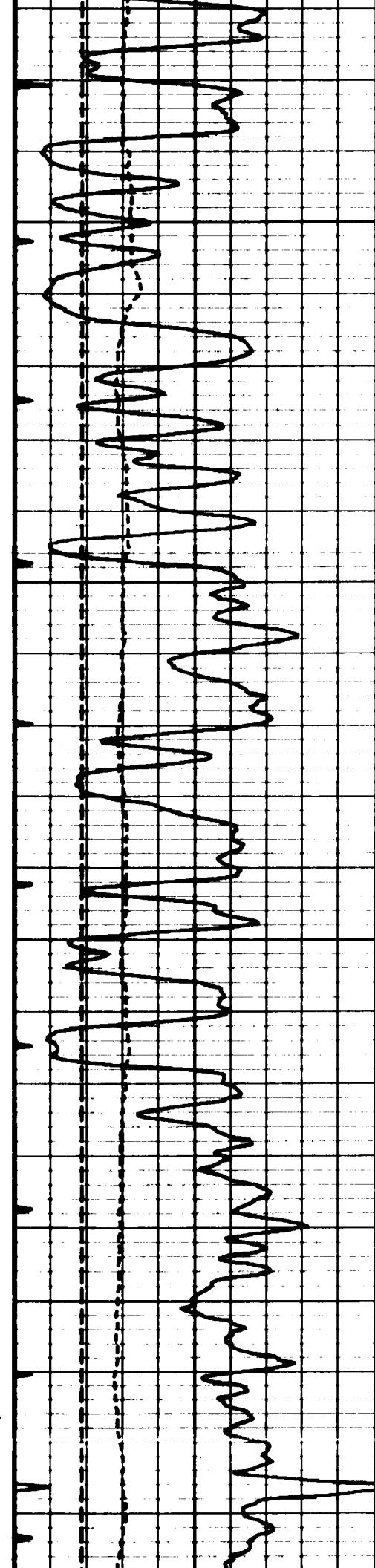
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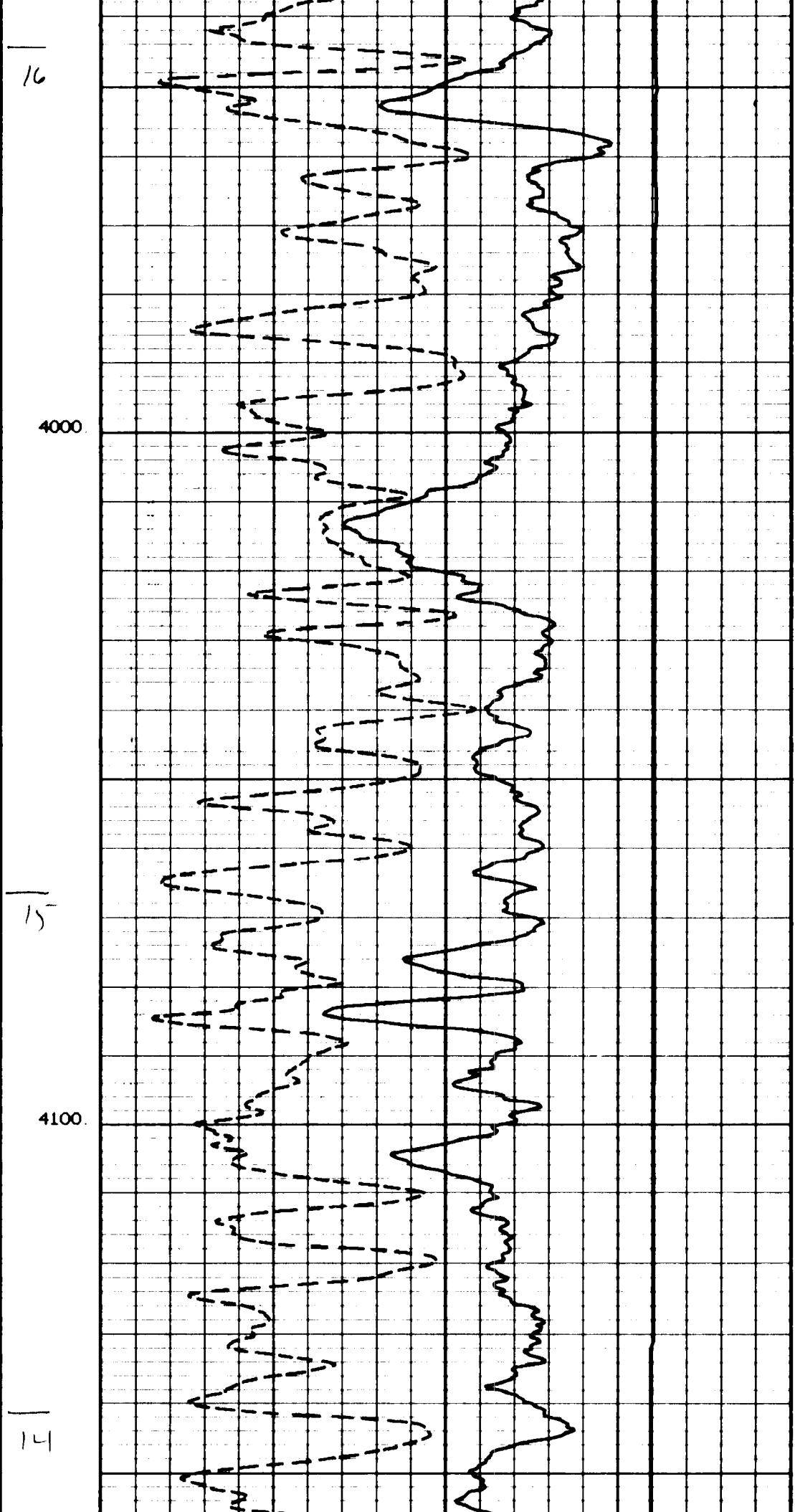
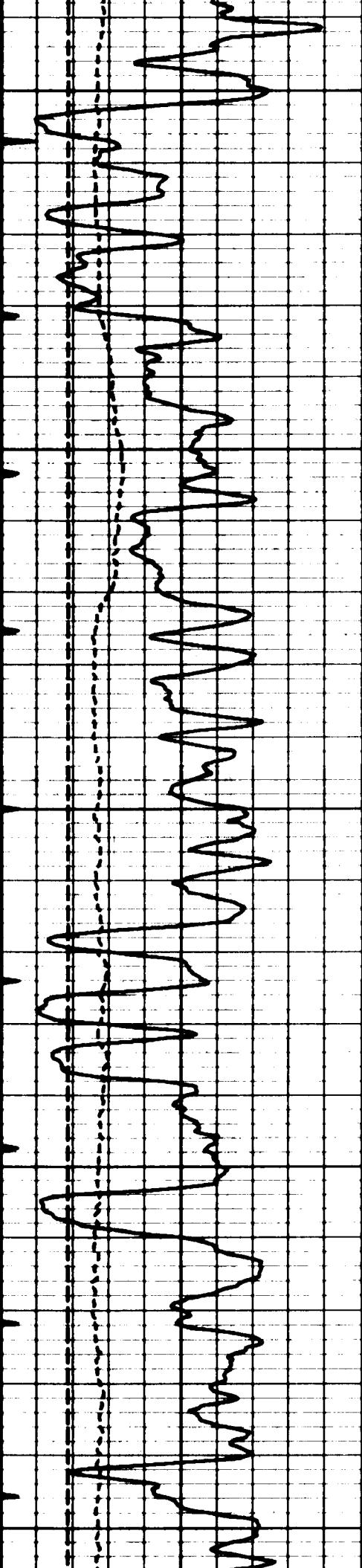


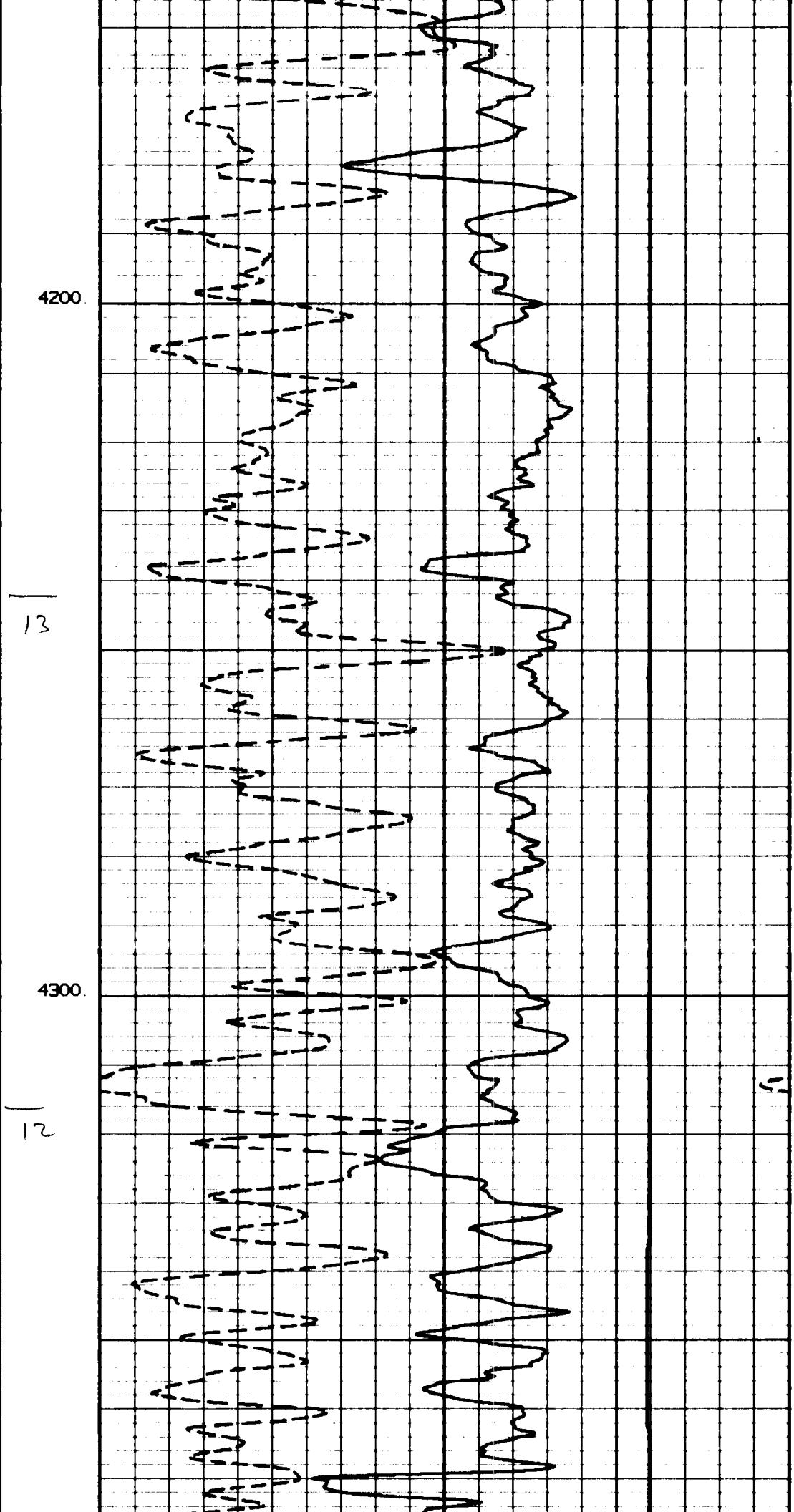
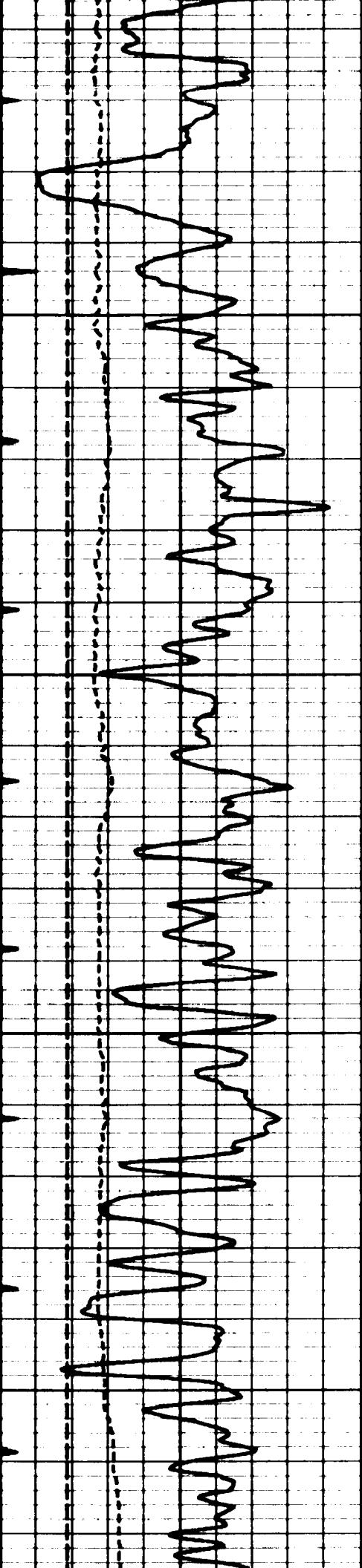
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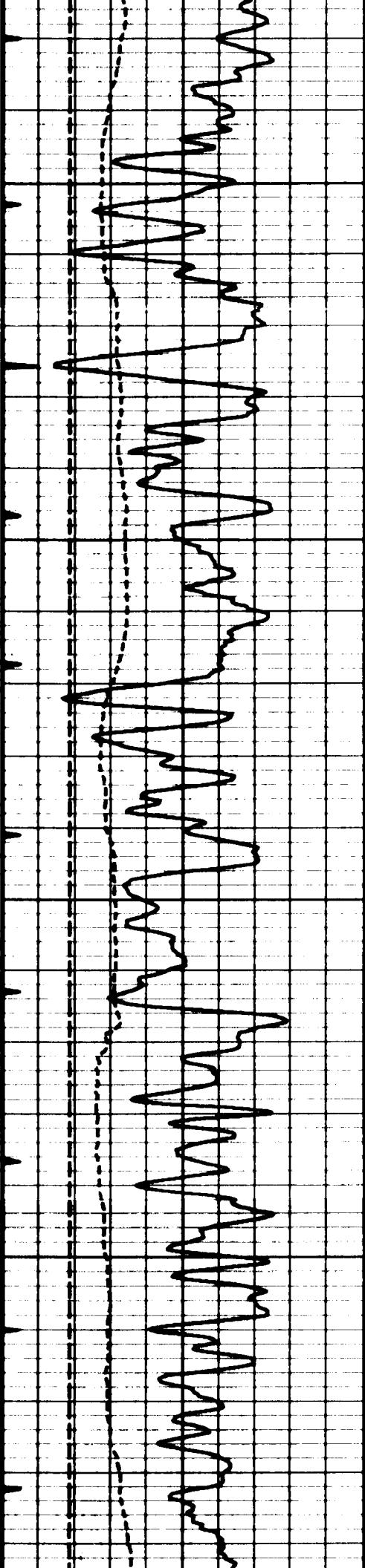
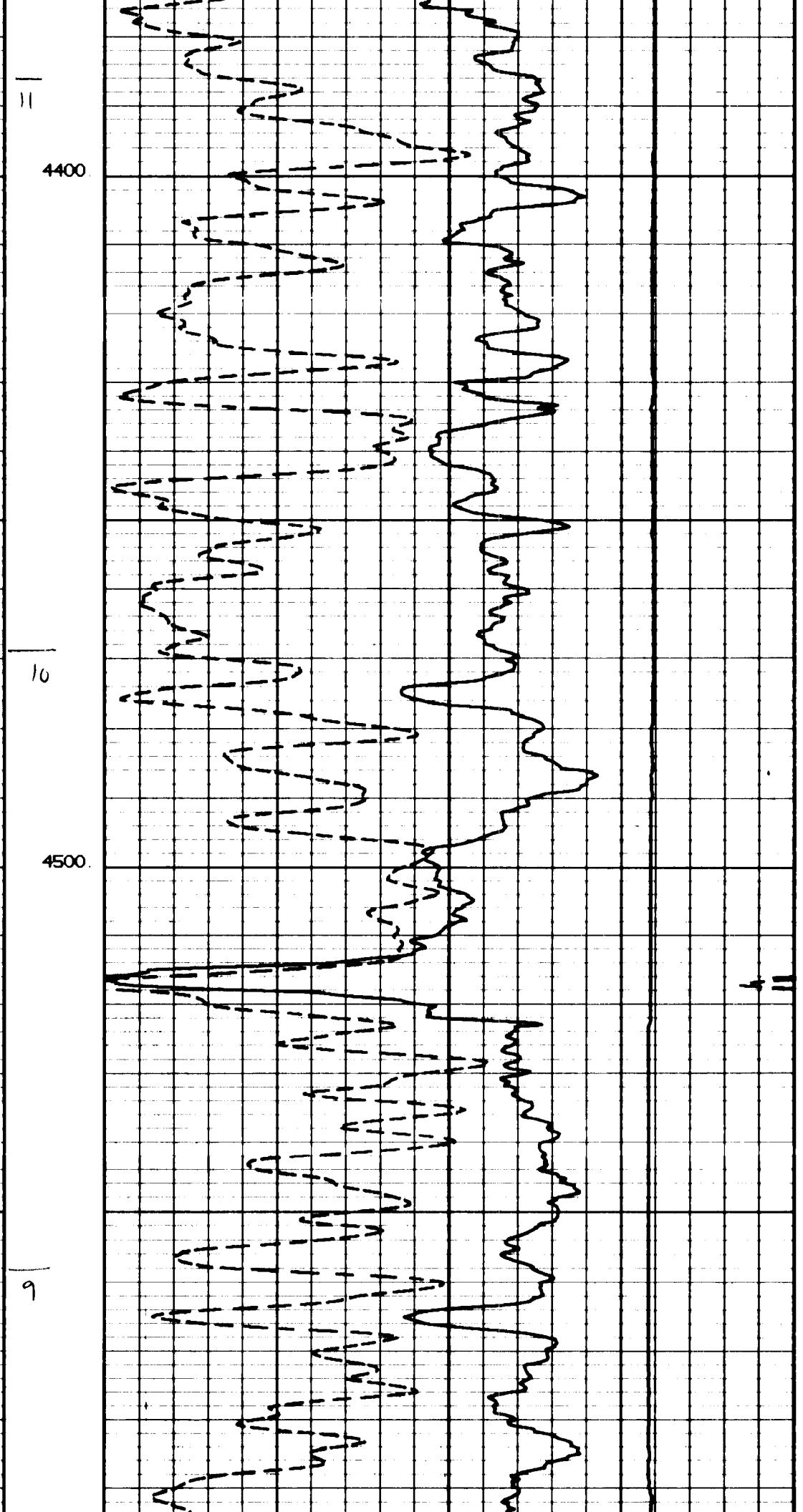
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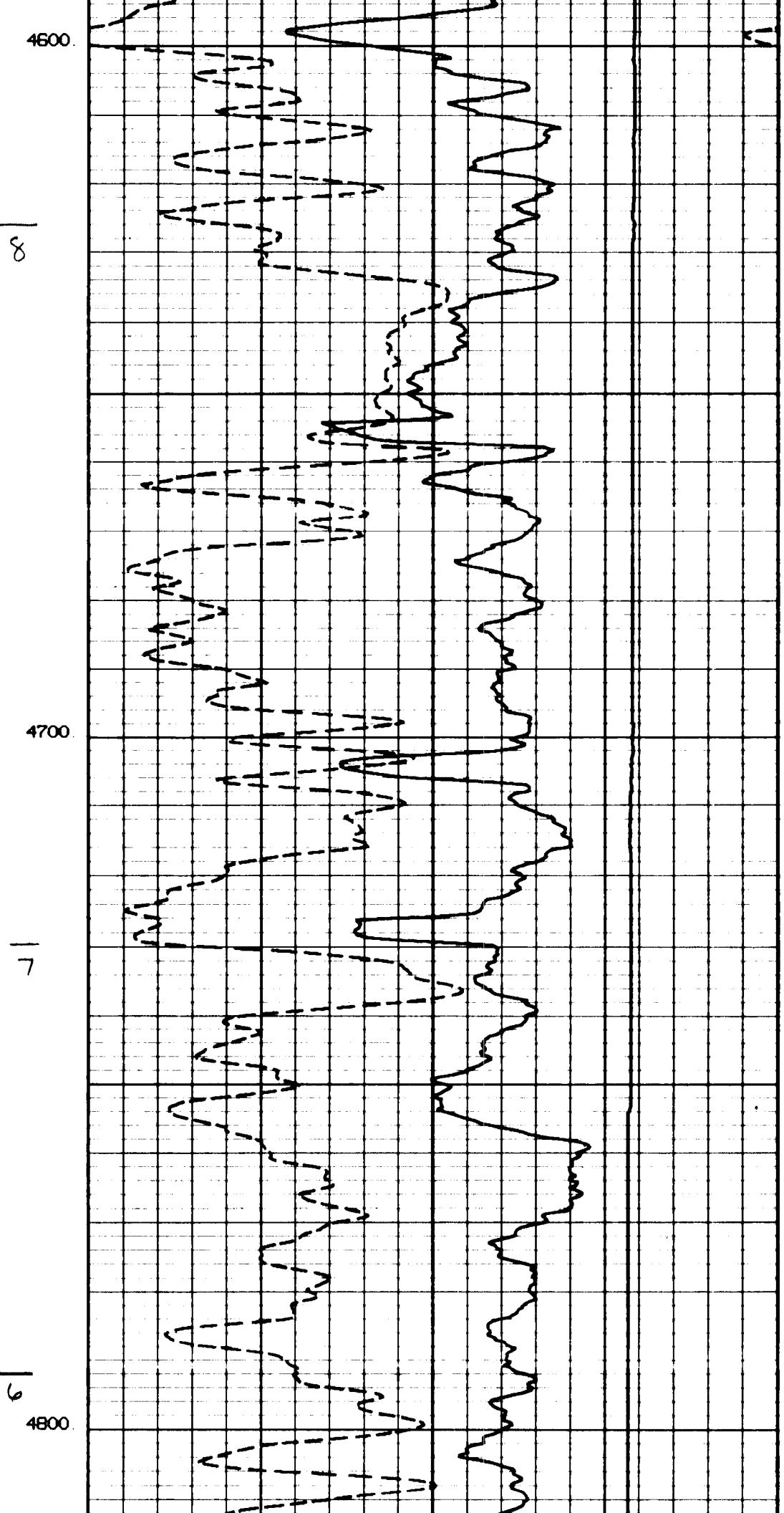
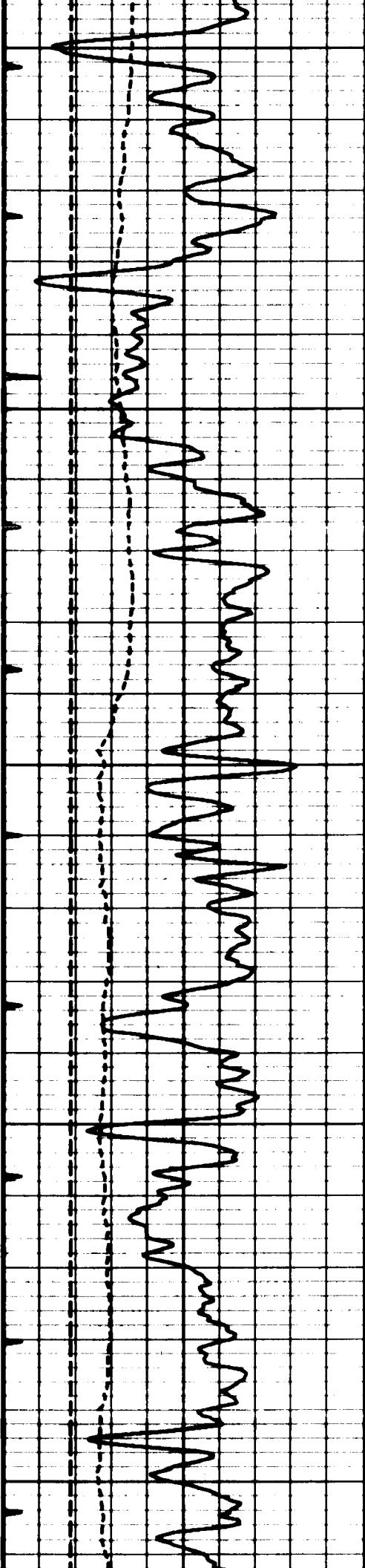
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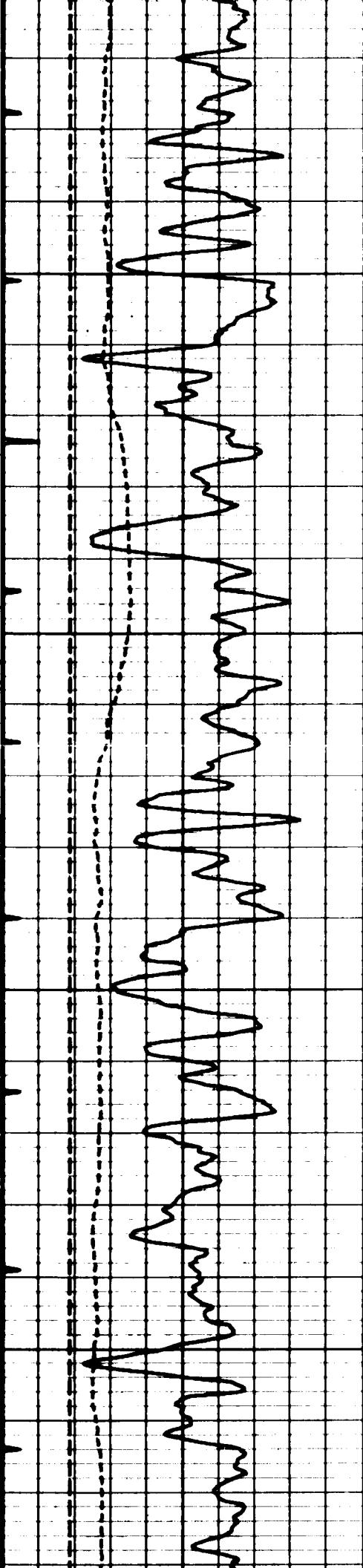








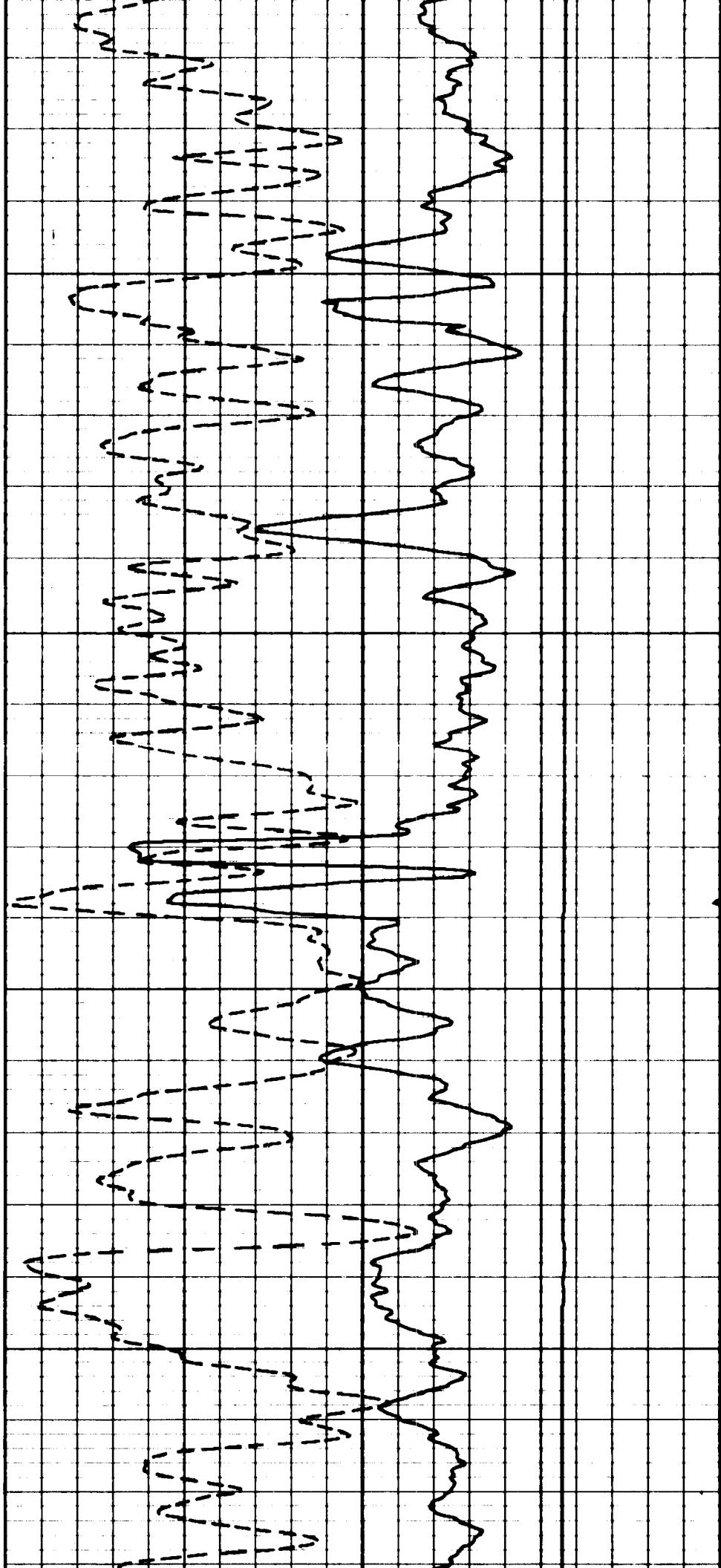


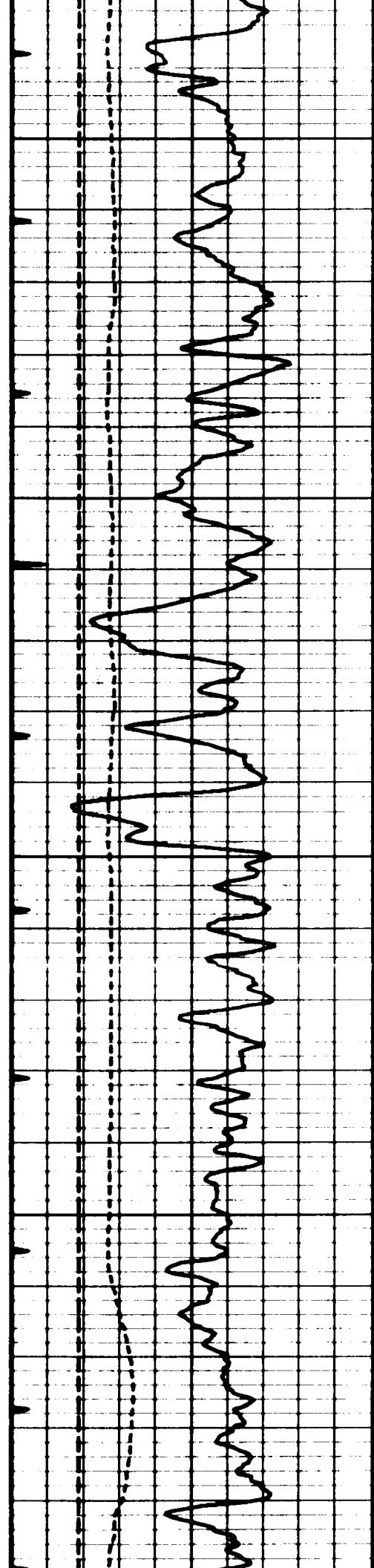


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51

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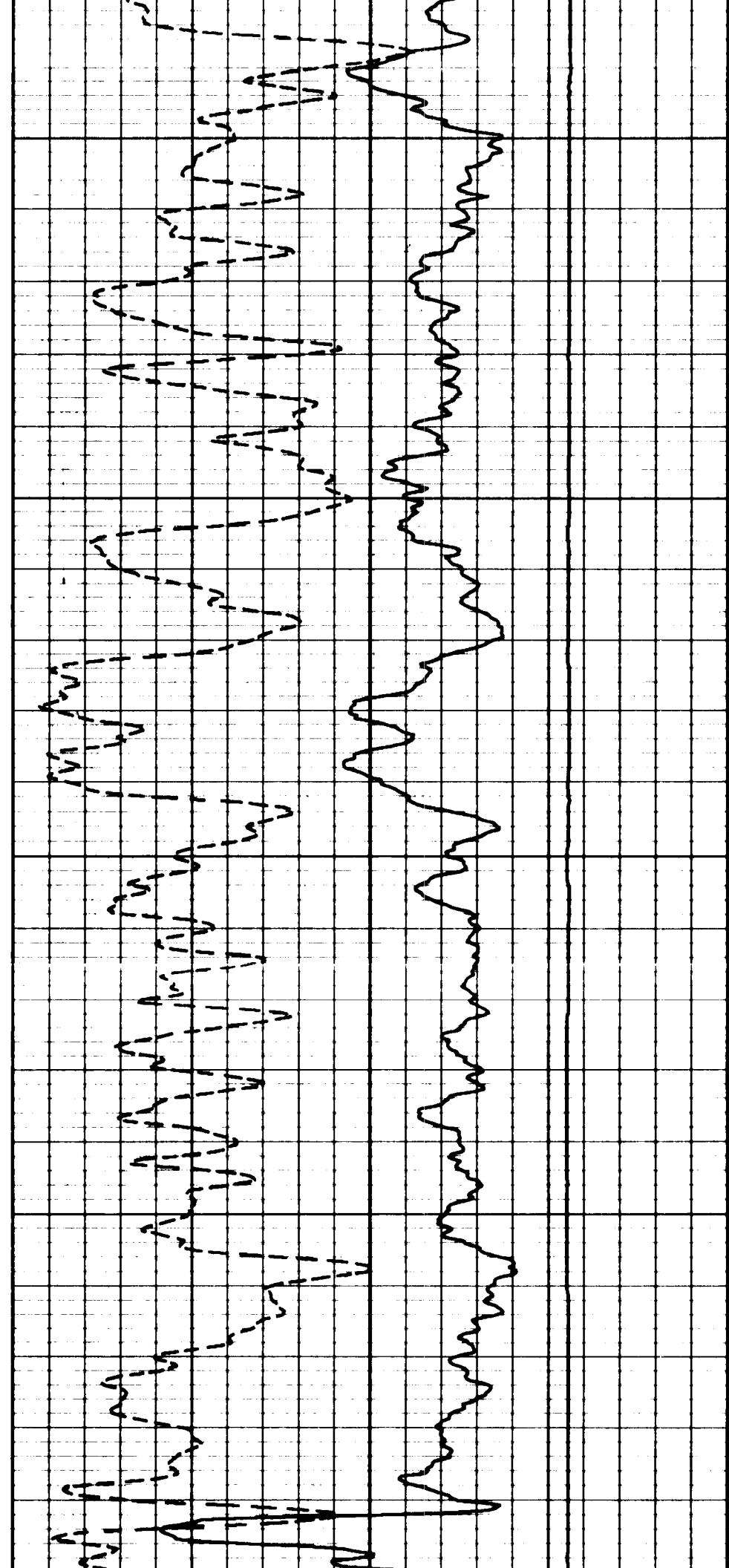


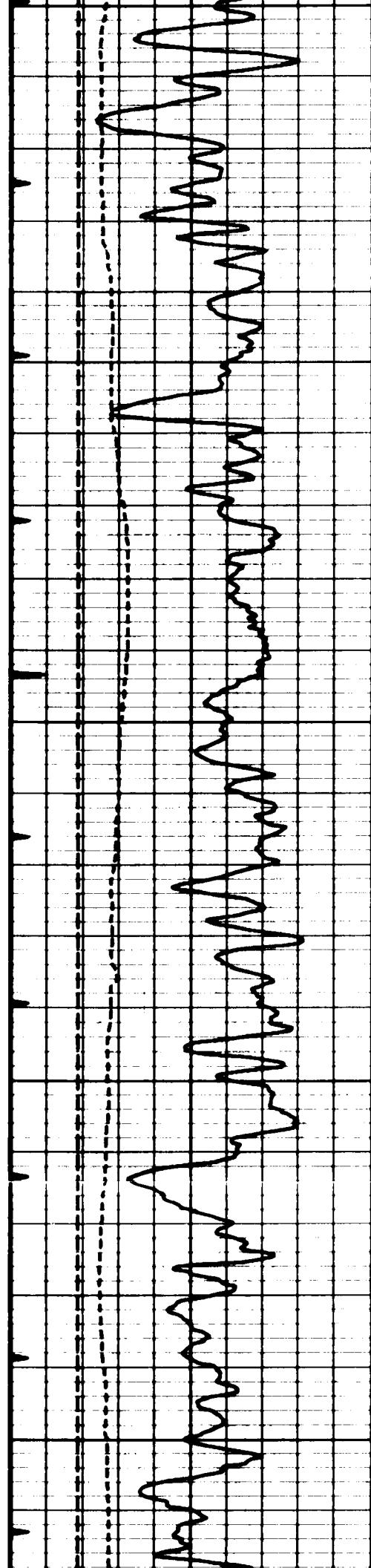
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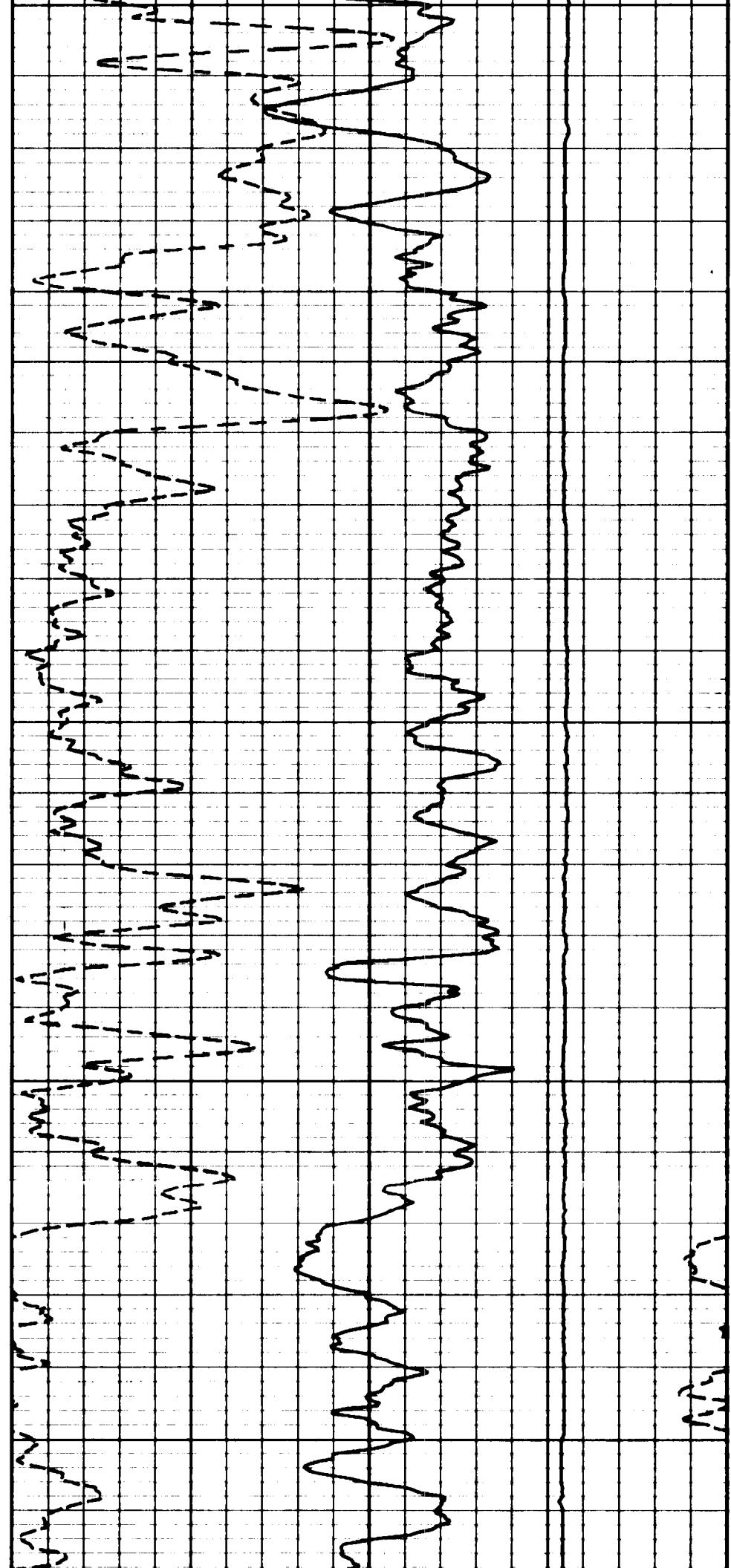
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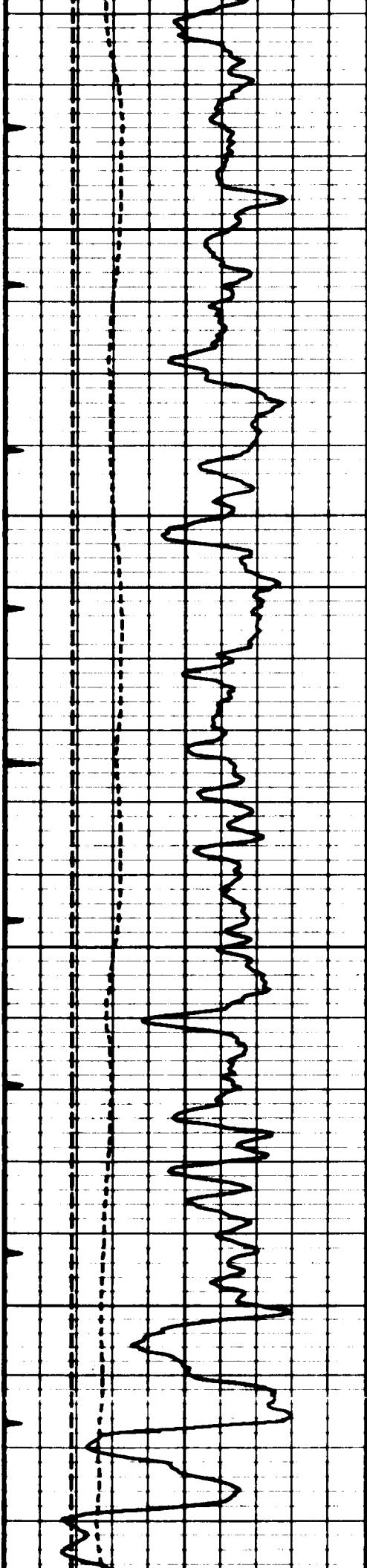


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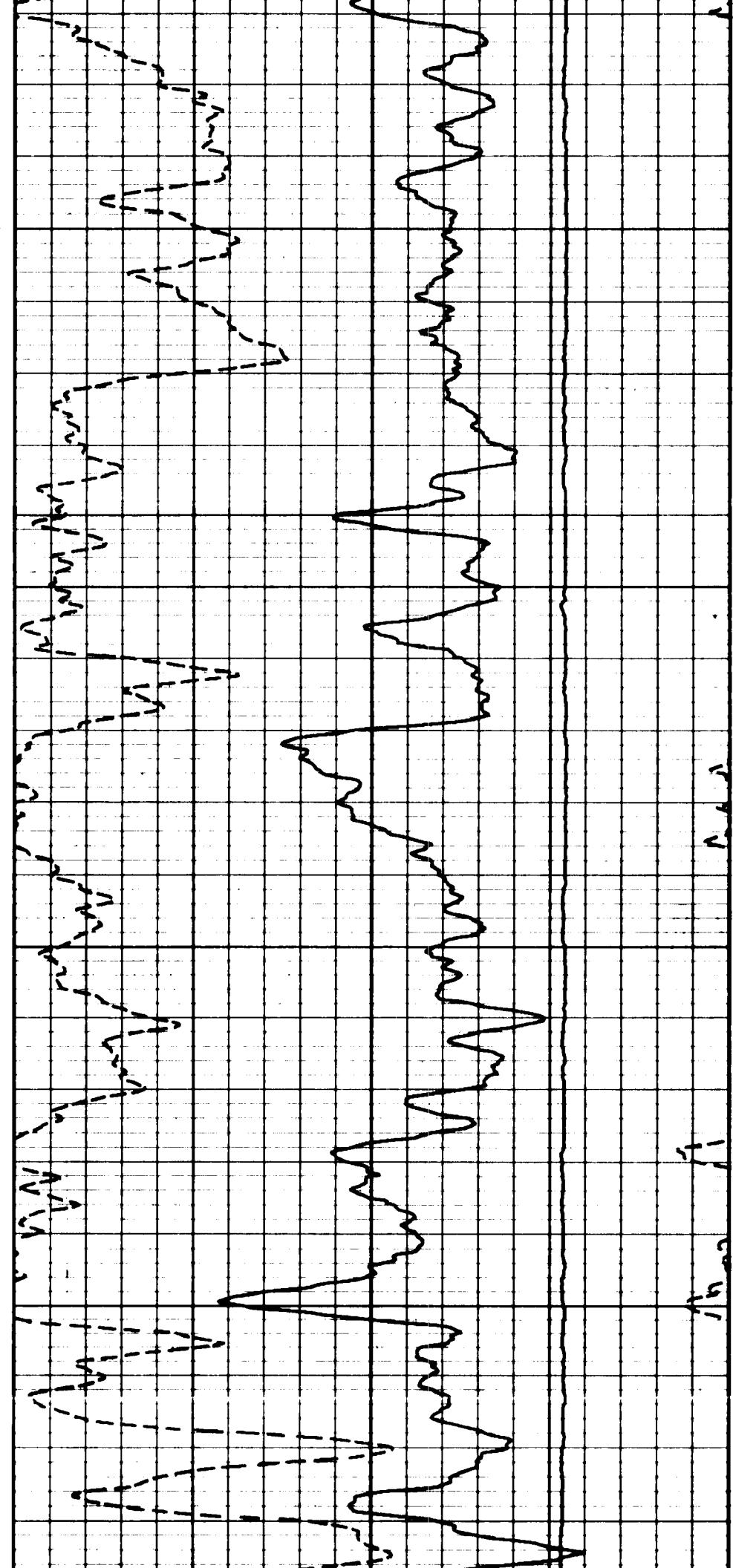
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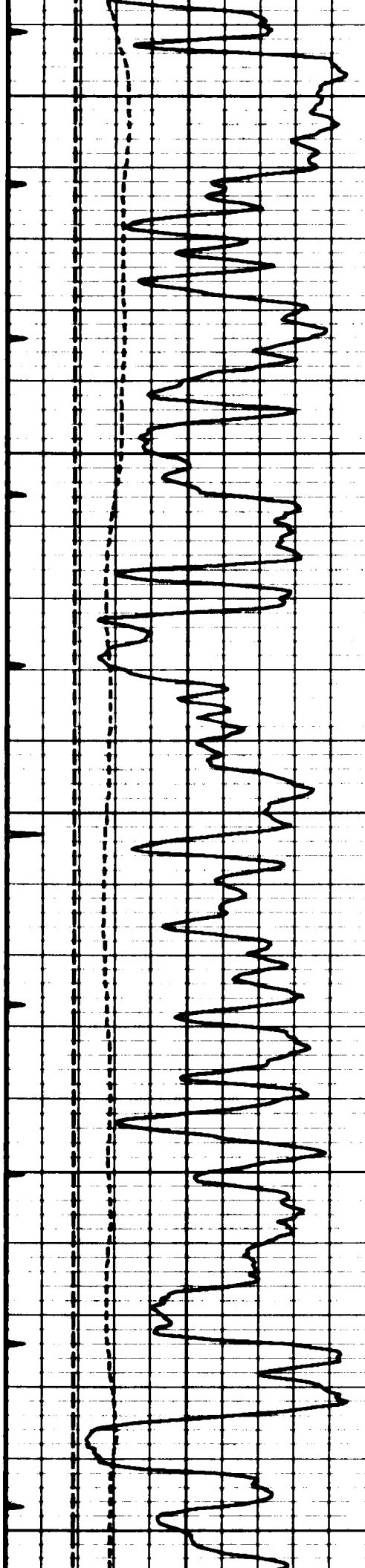


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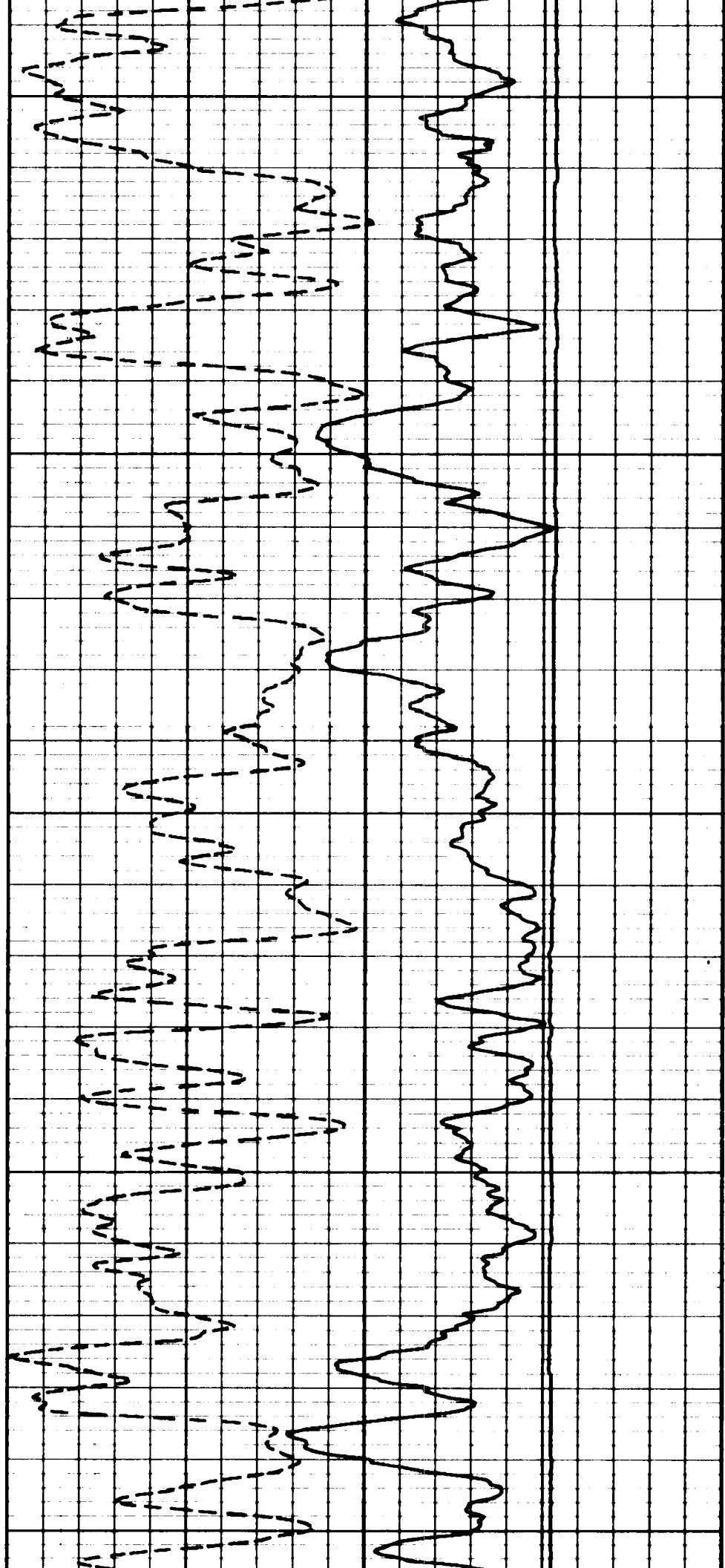
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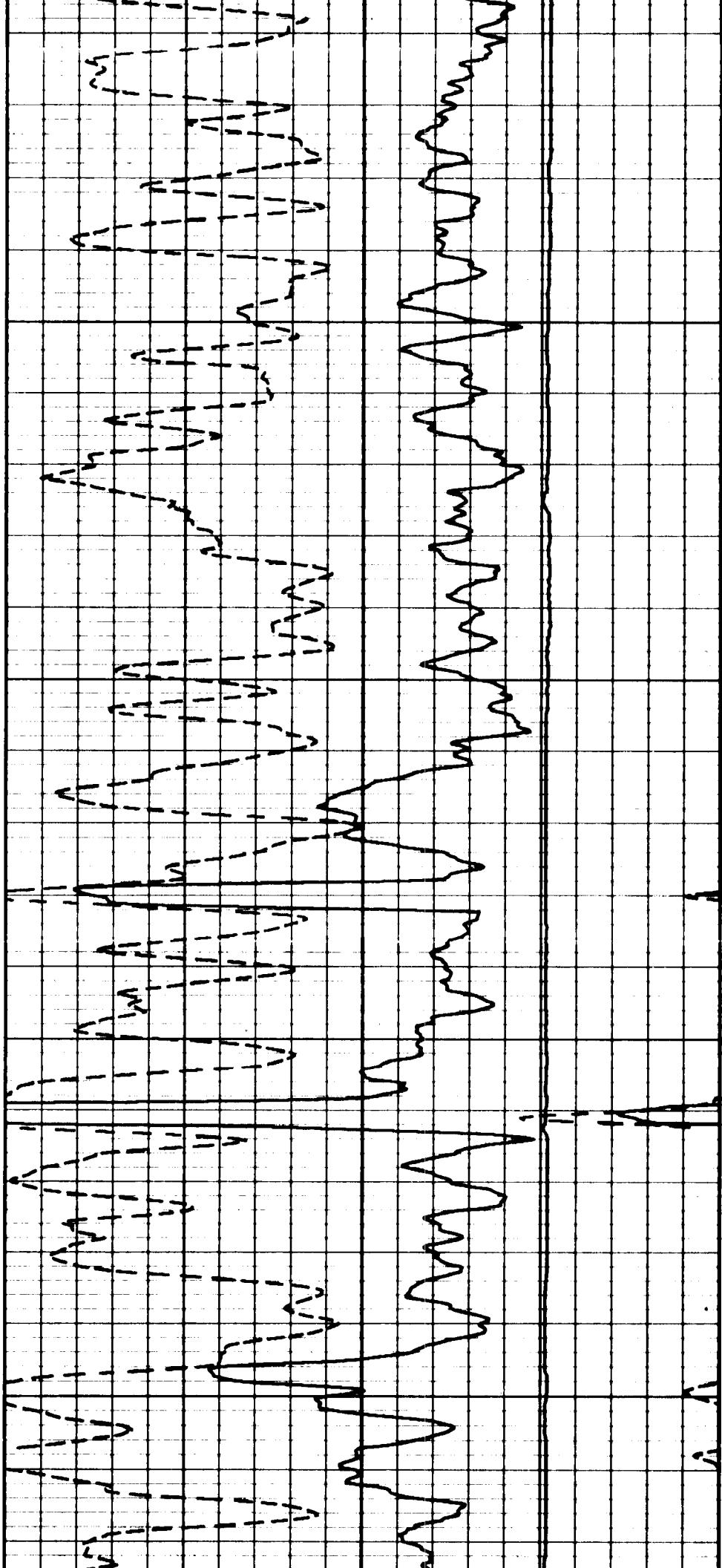
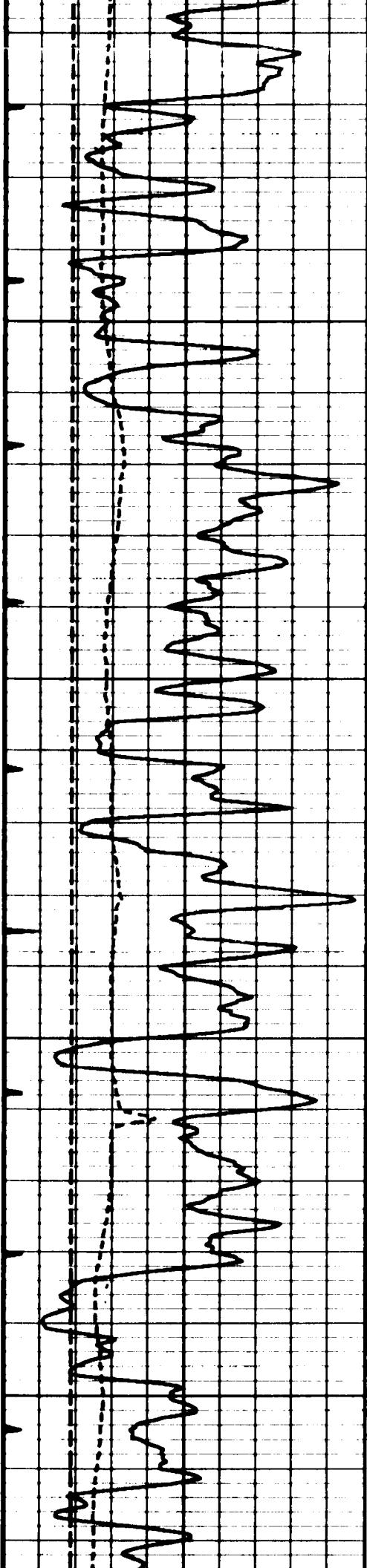


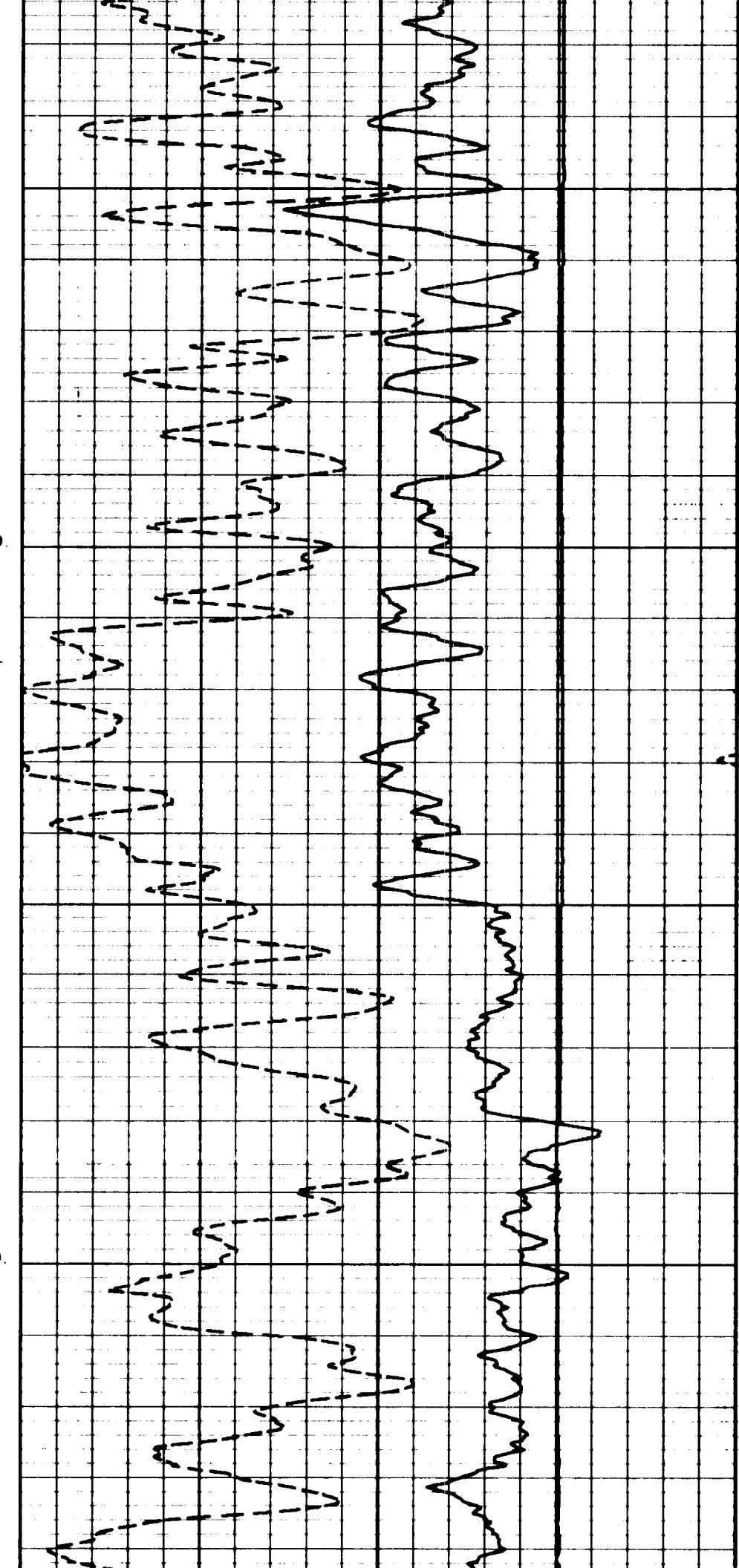
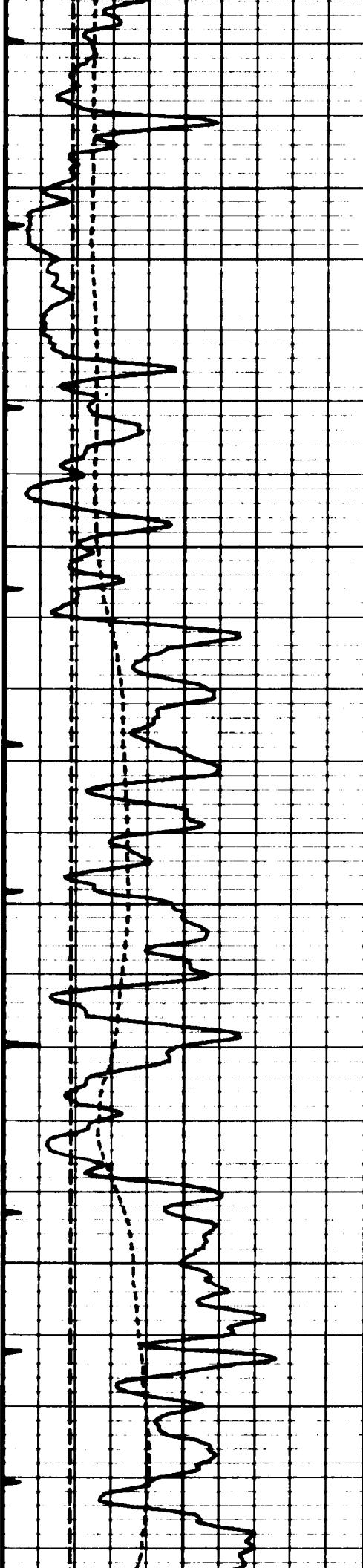
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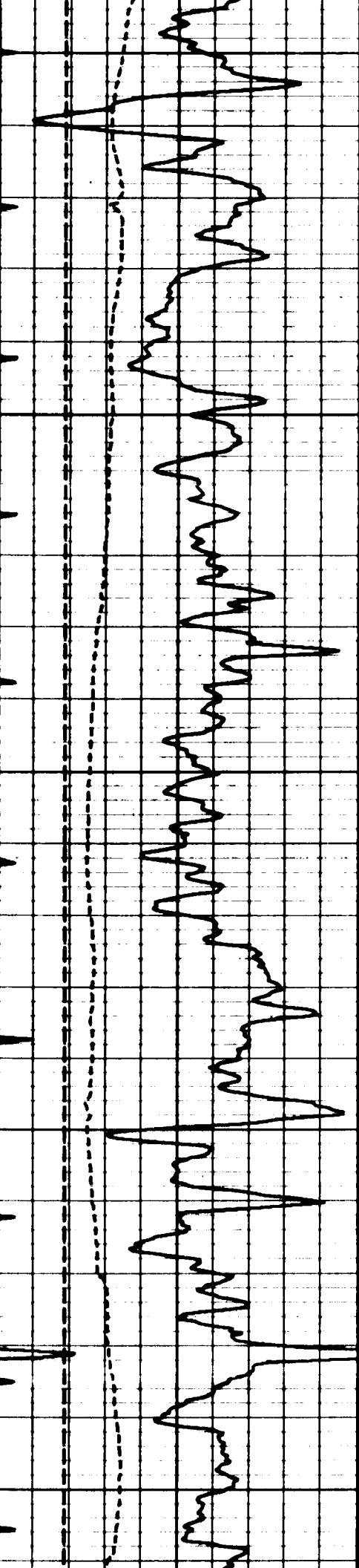


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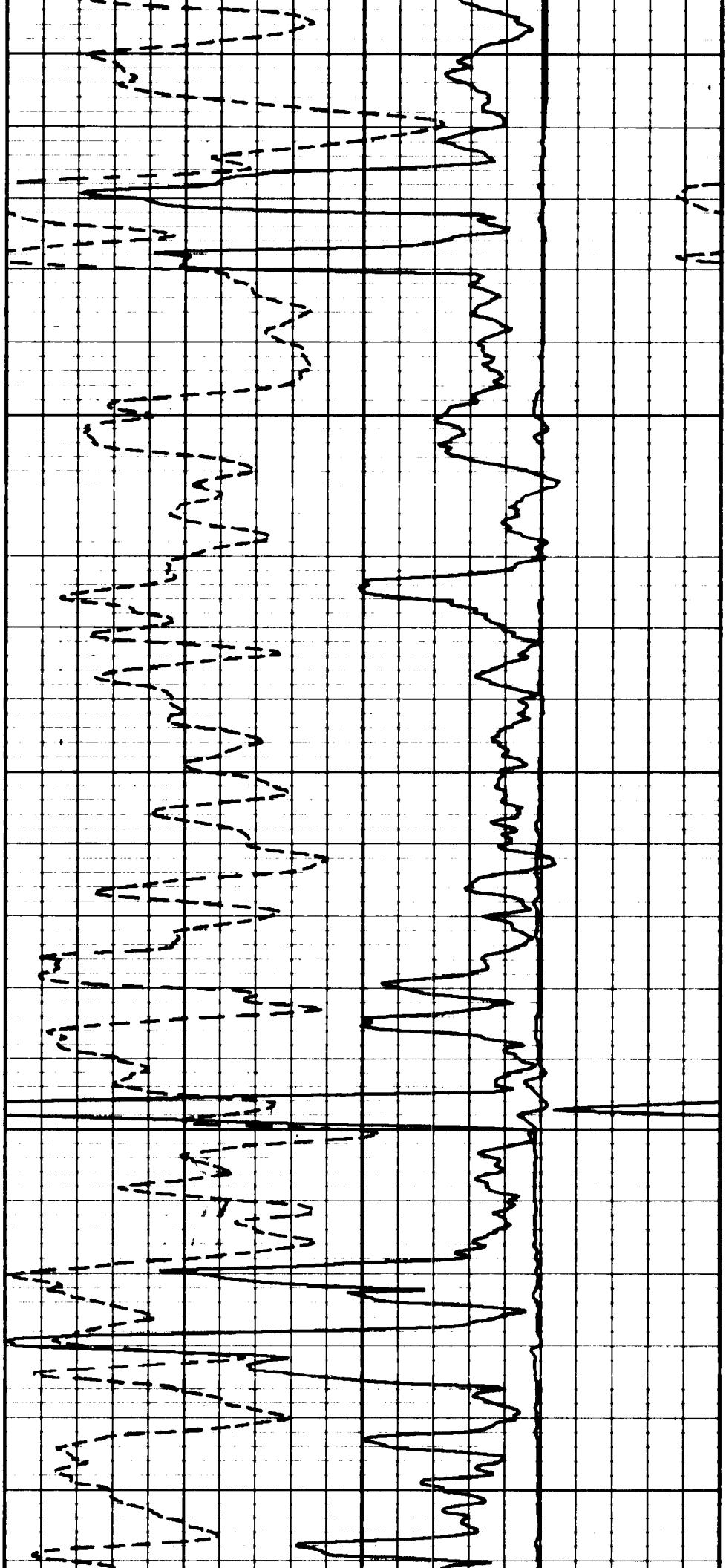
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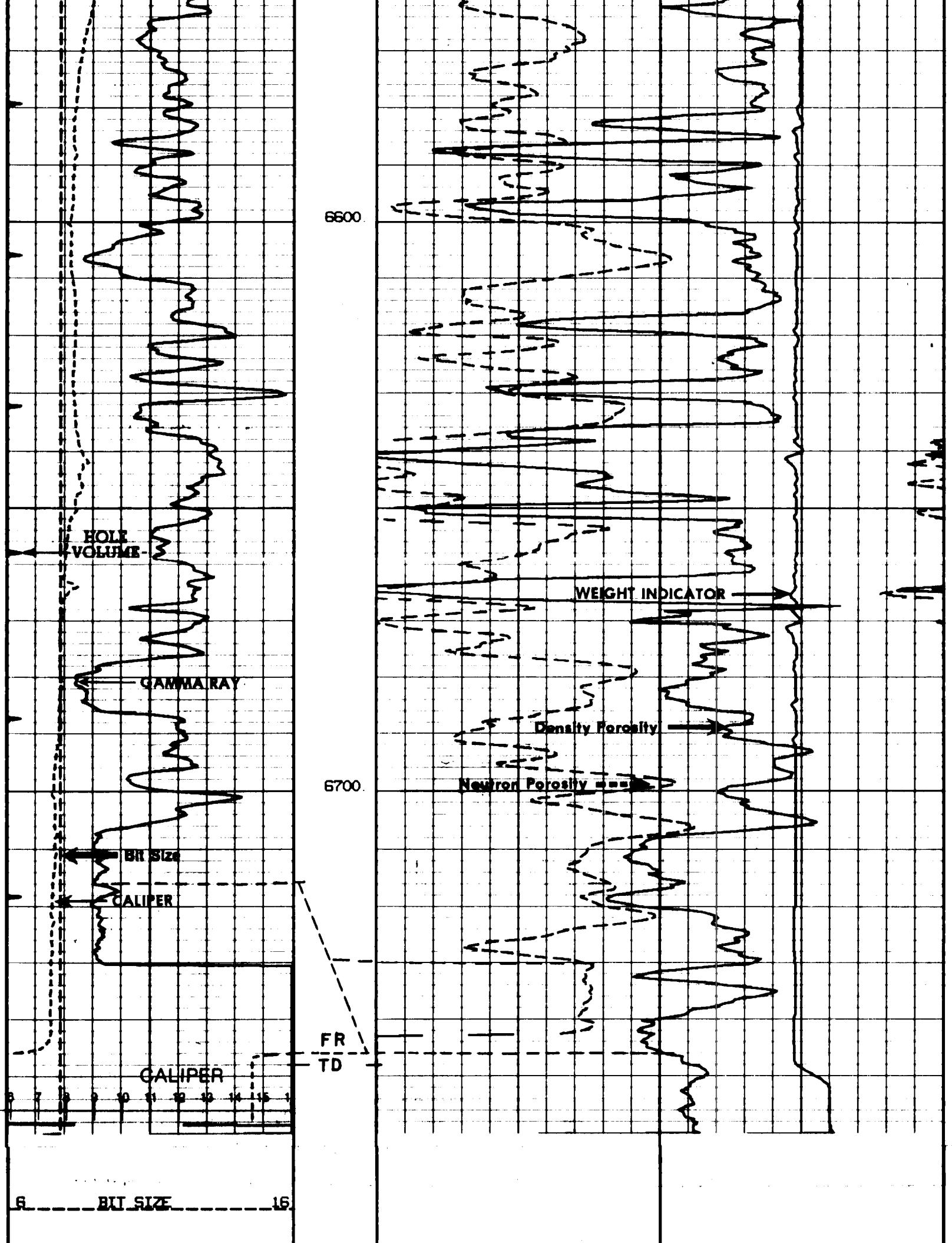


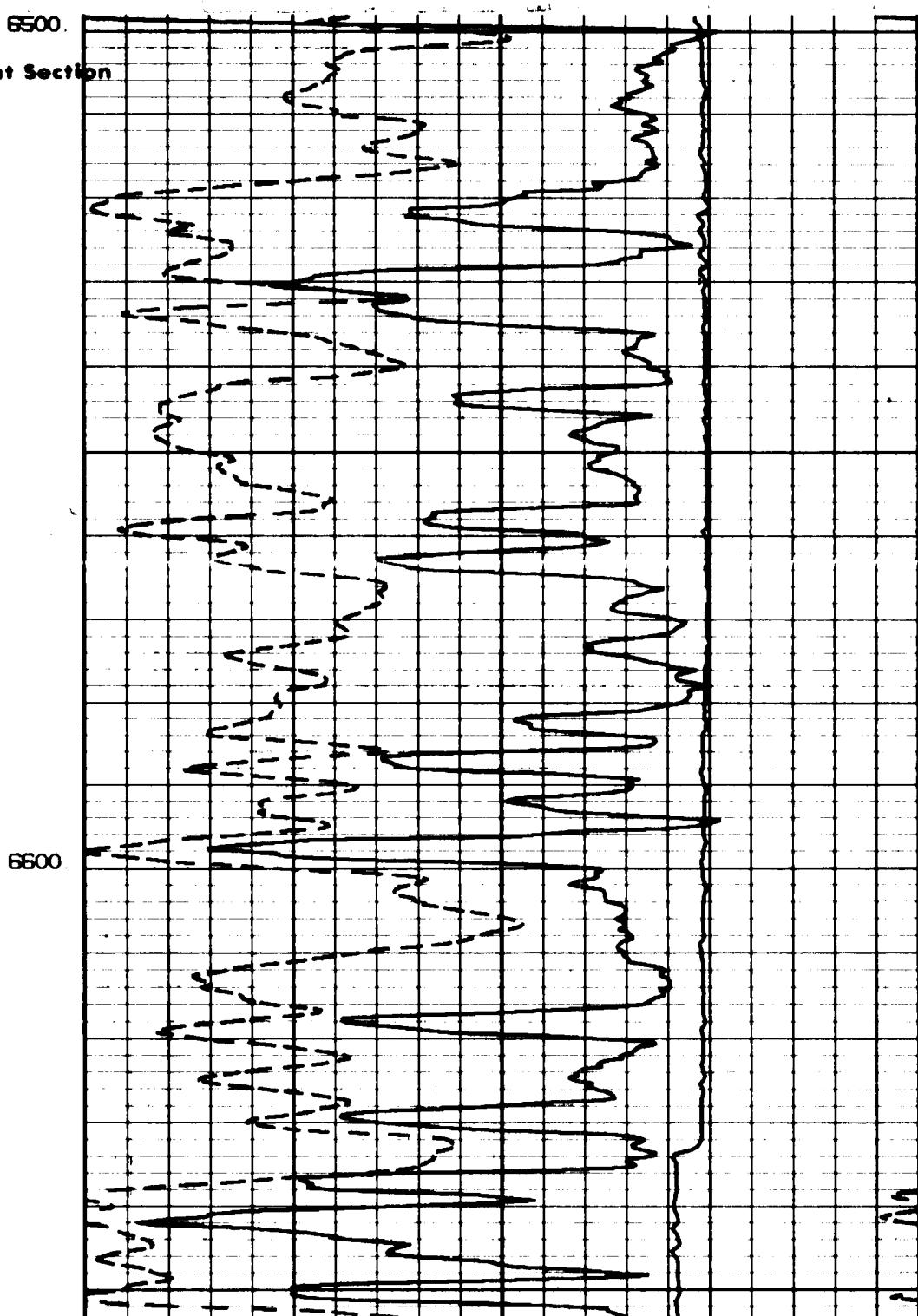
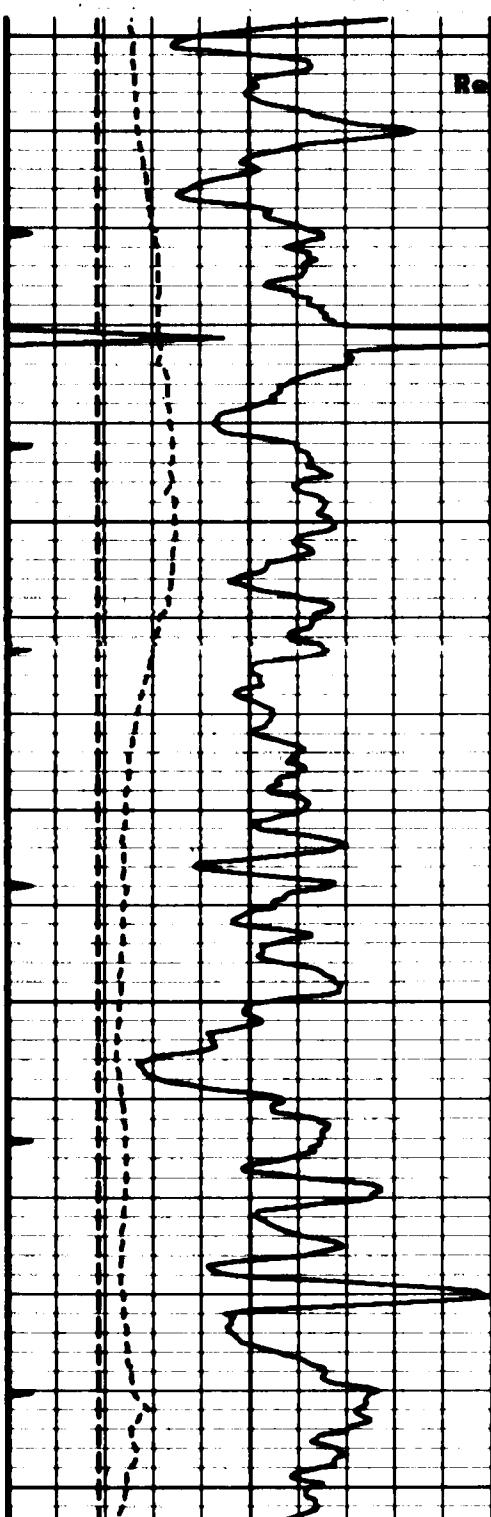
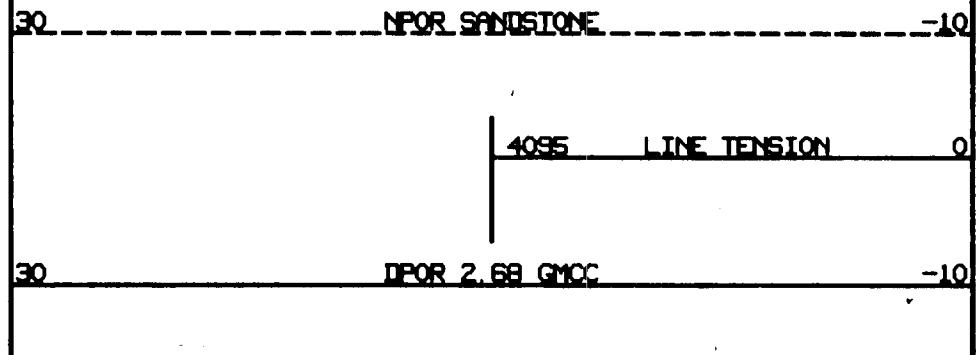
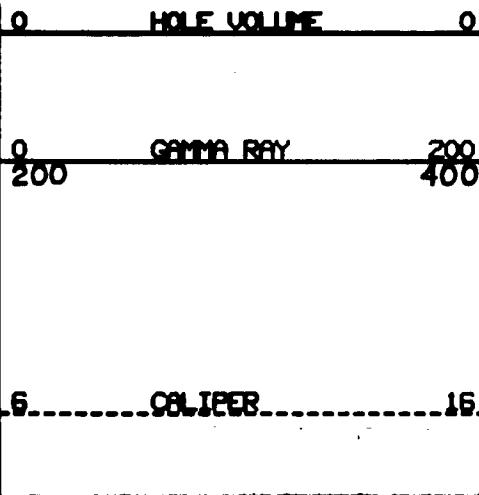


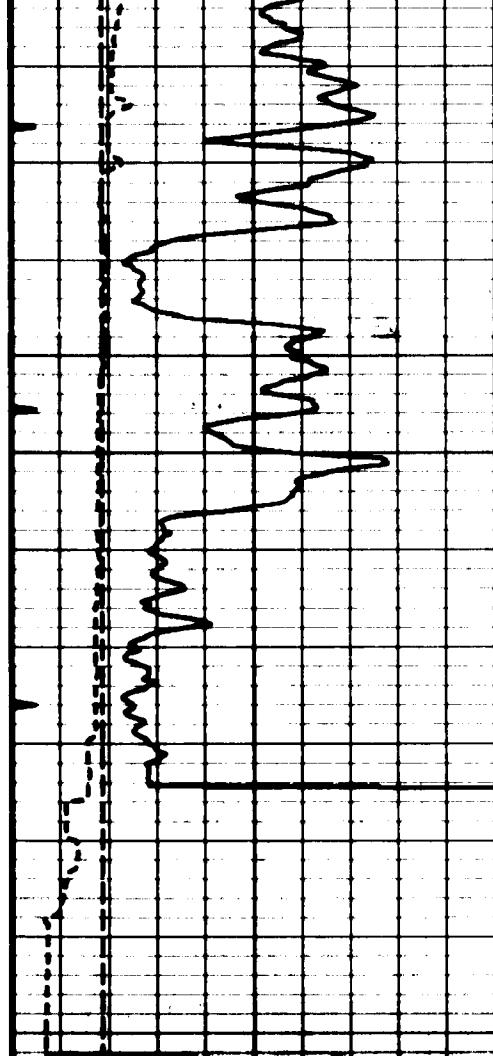
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6500.







6 CALIPER 16

8 GAMMA RAY 200 400

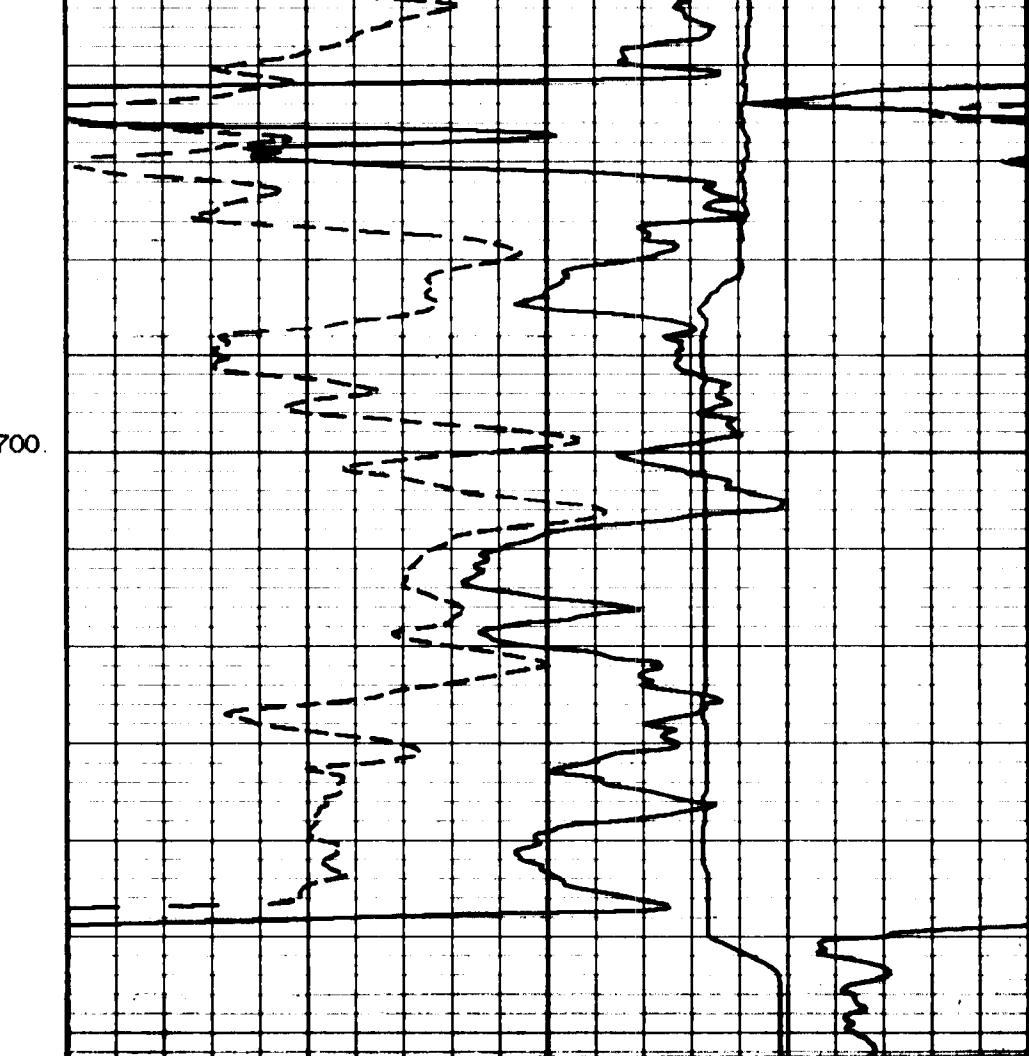
8 HOLE VOLUME 8

6 BBL SIZE 16

11 12 13 14 15 16
CALIPER

CALIPER

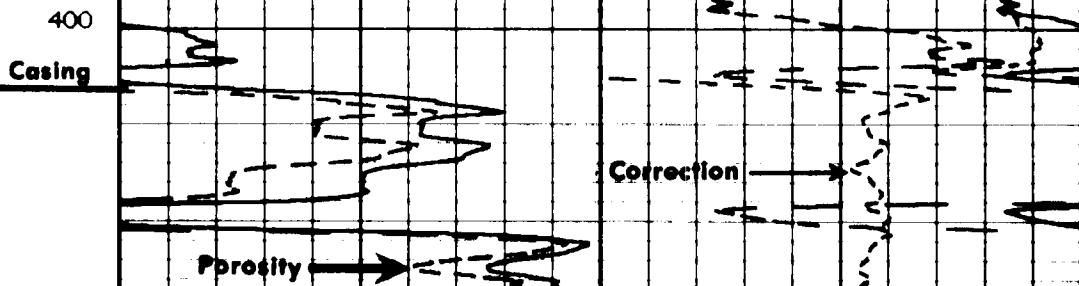
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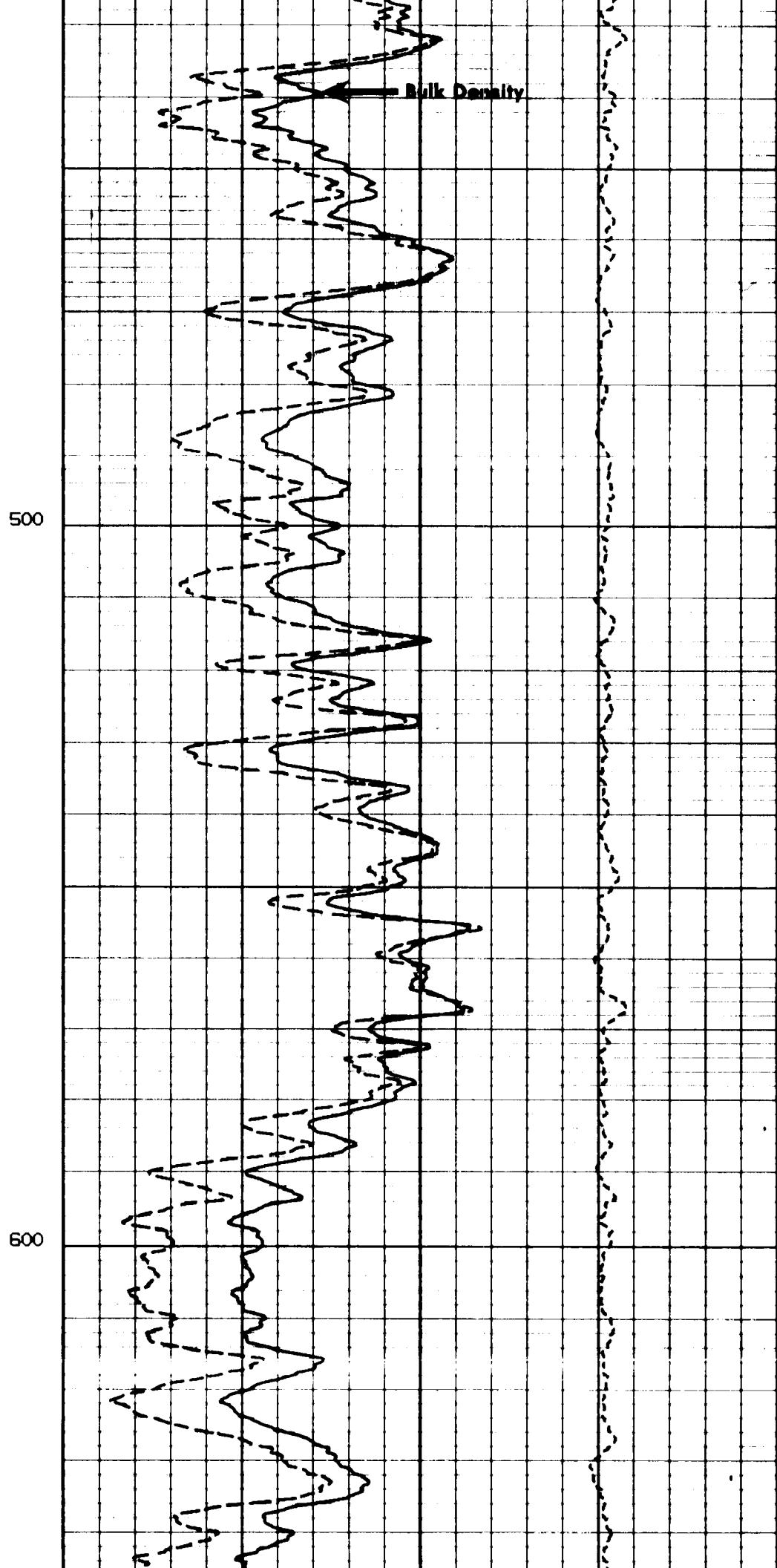
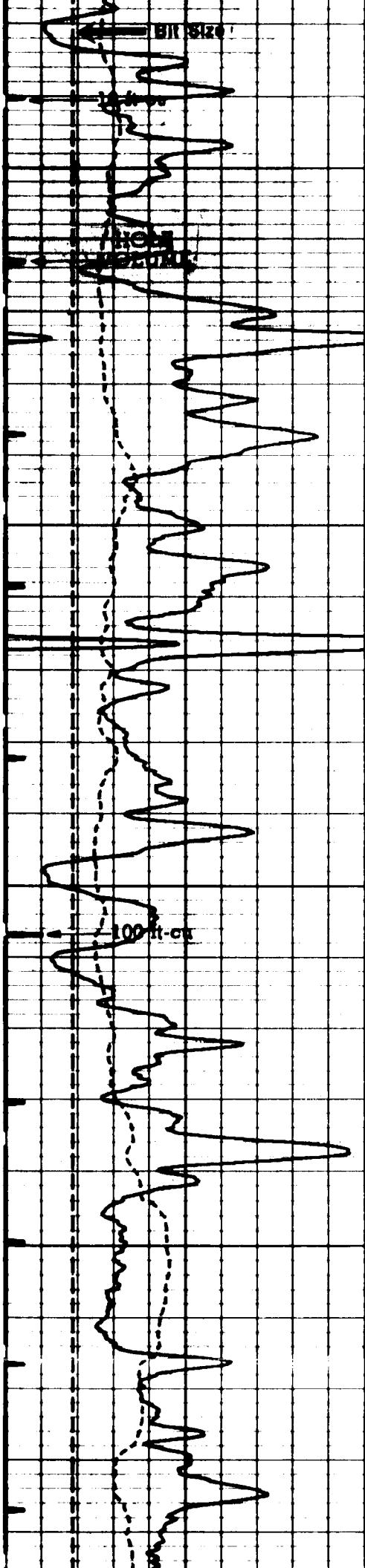


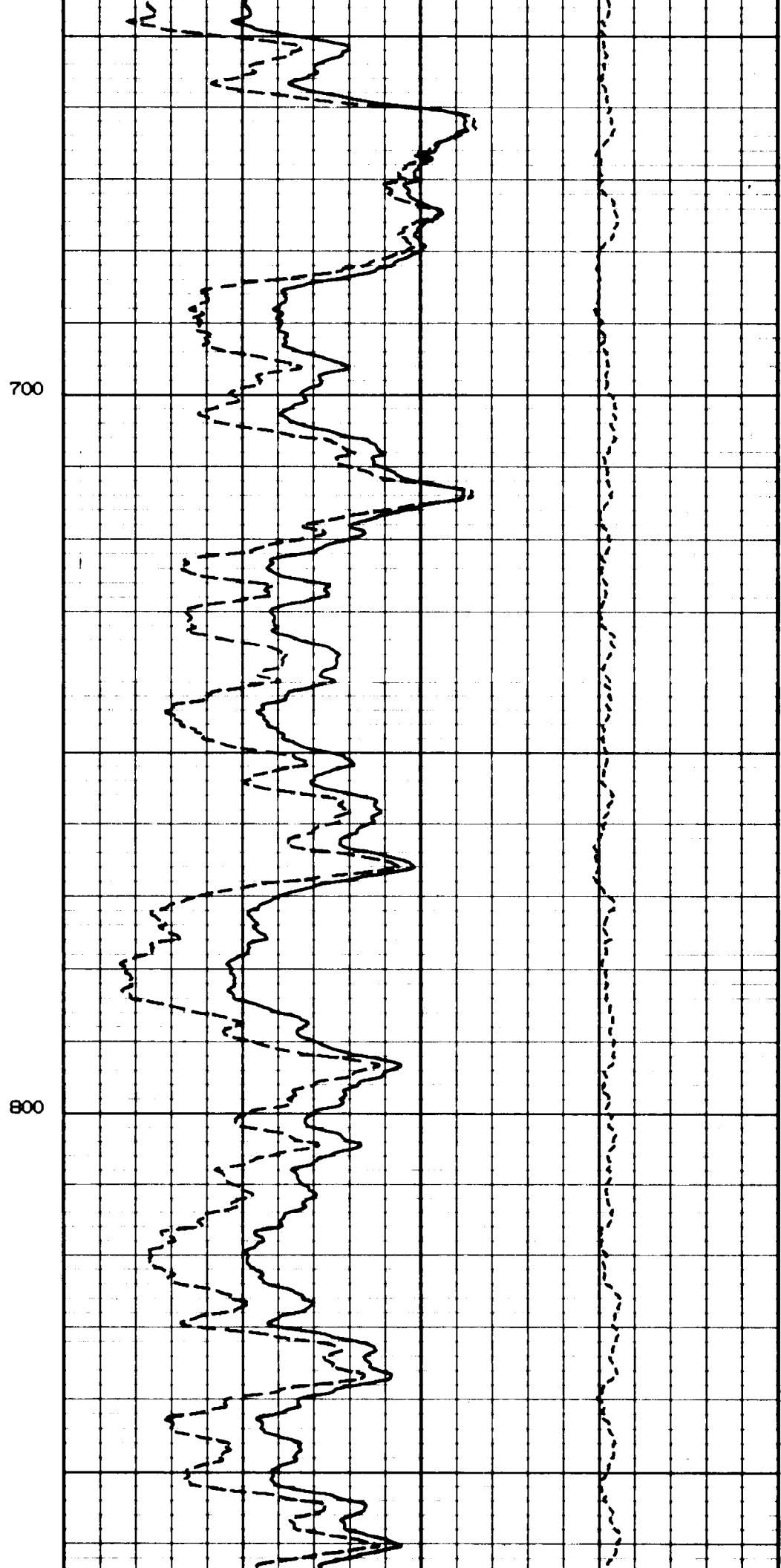
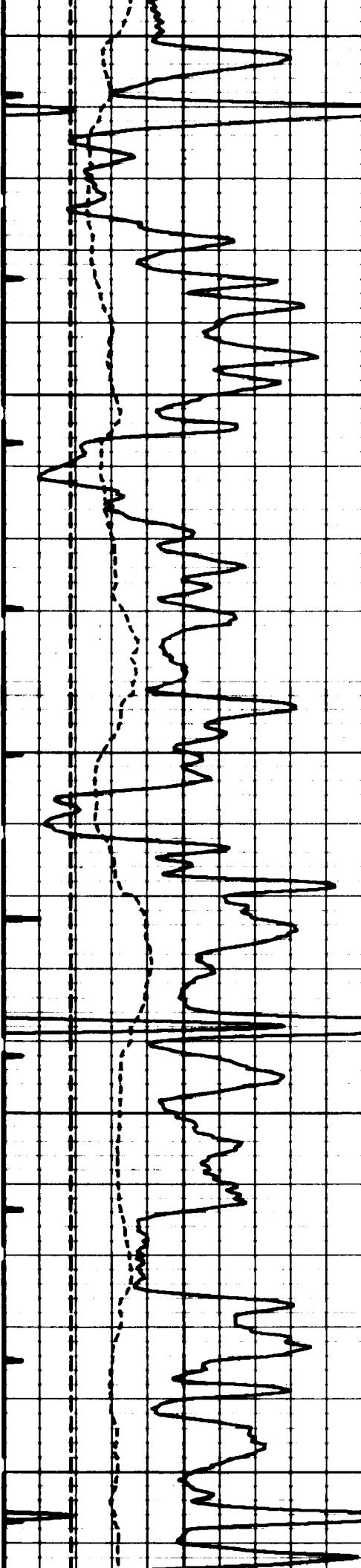
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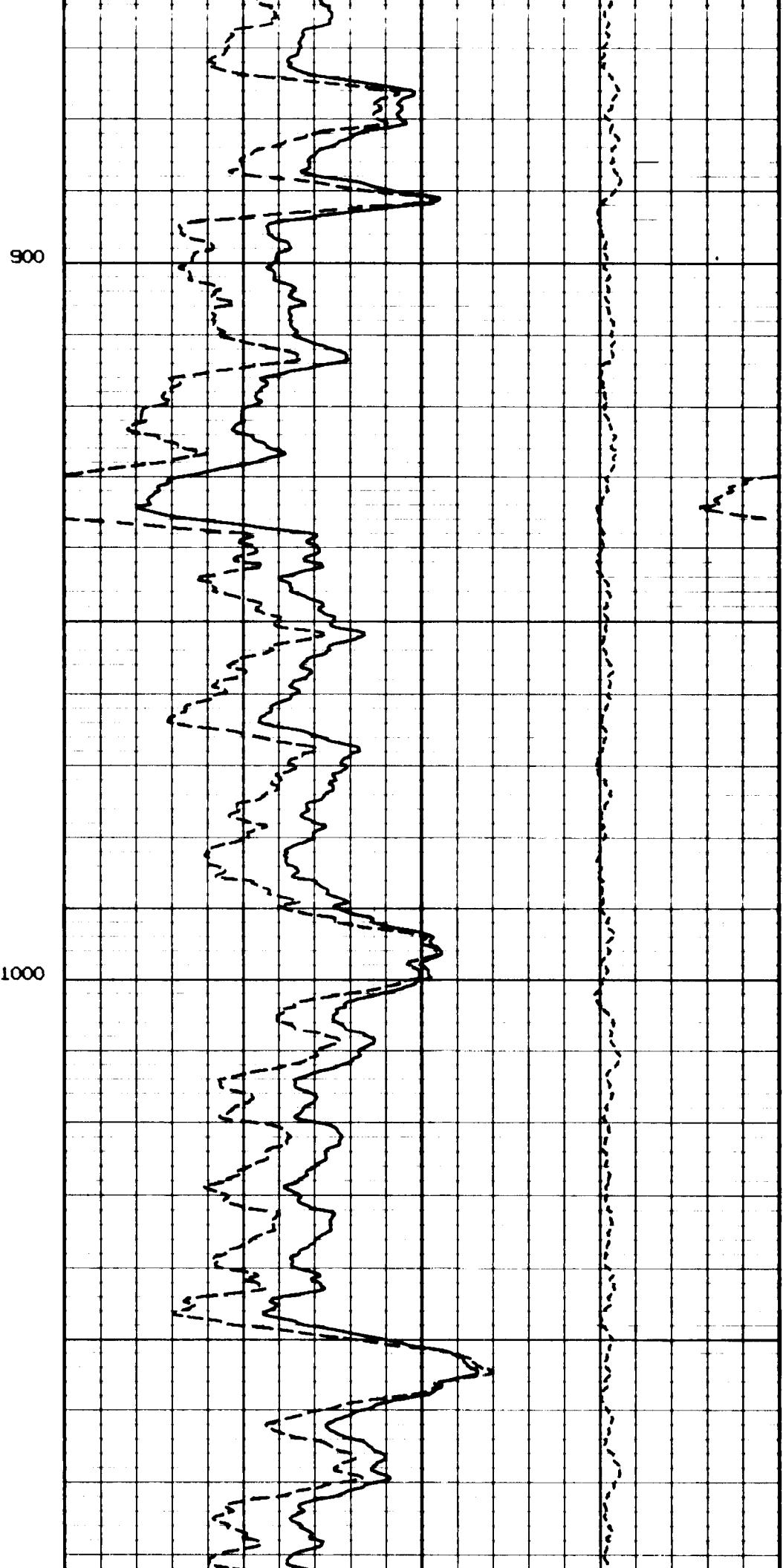
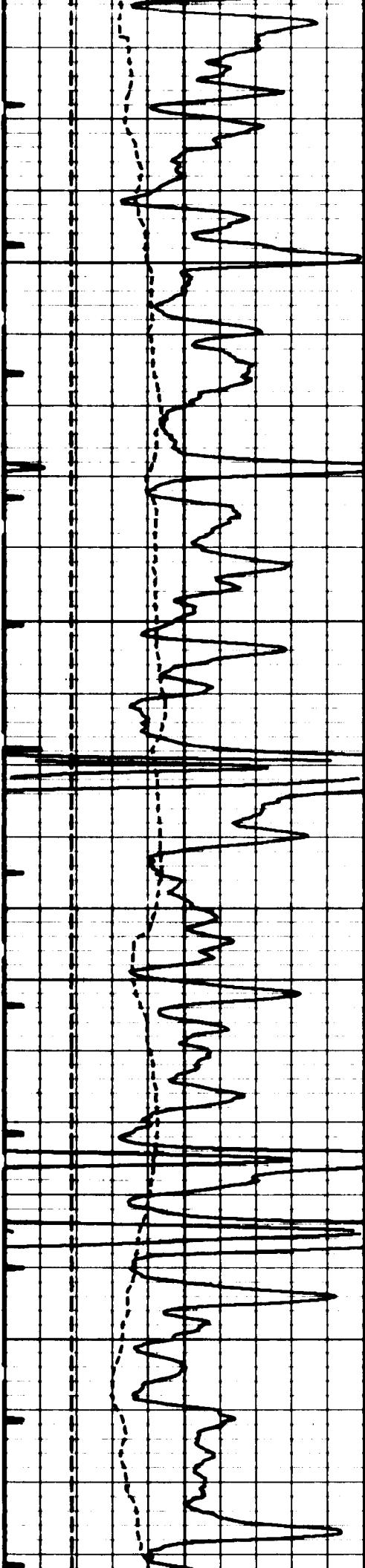
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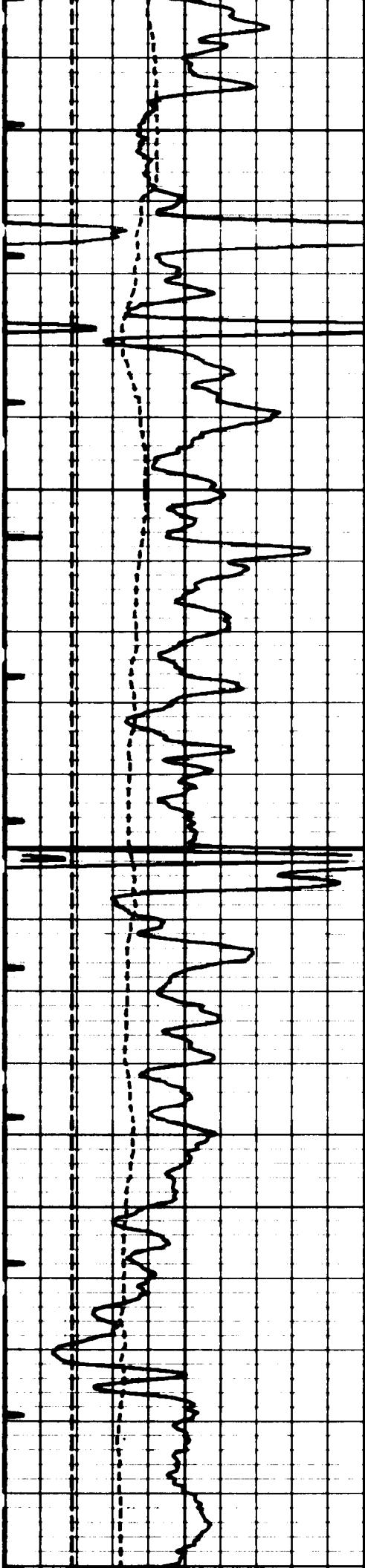
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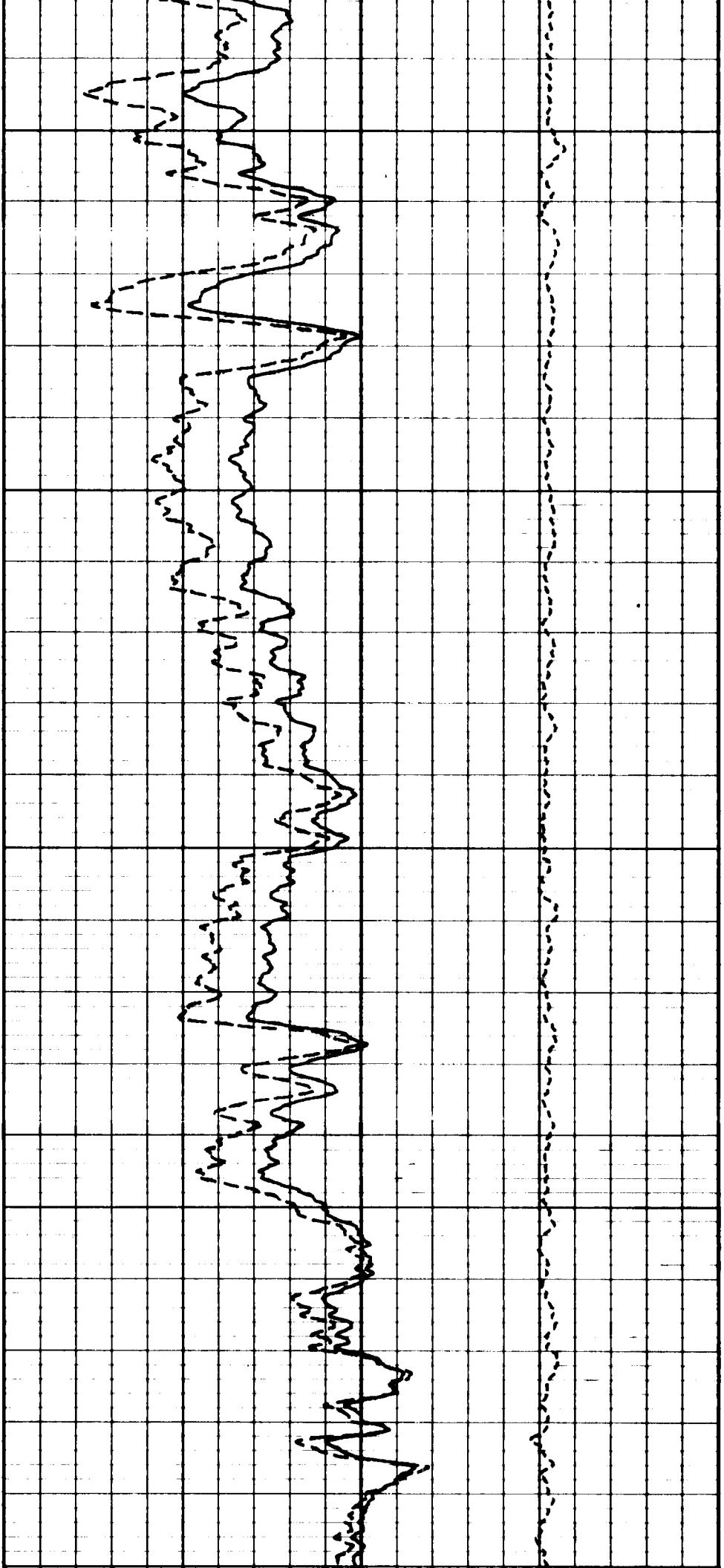


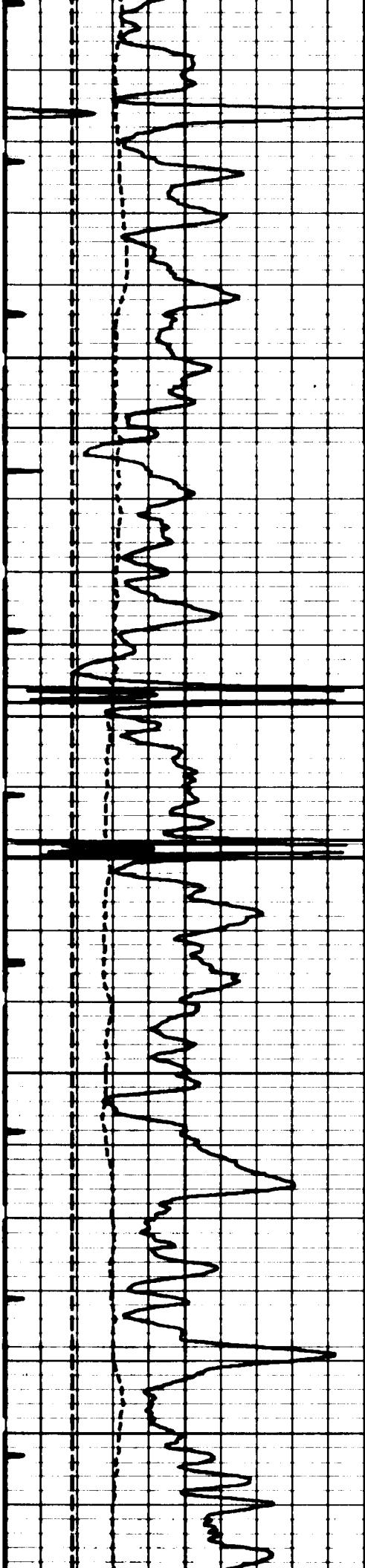


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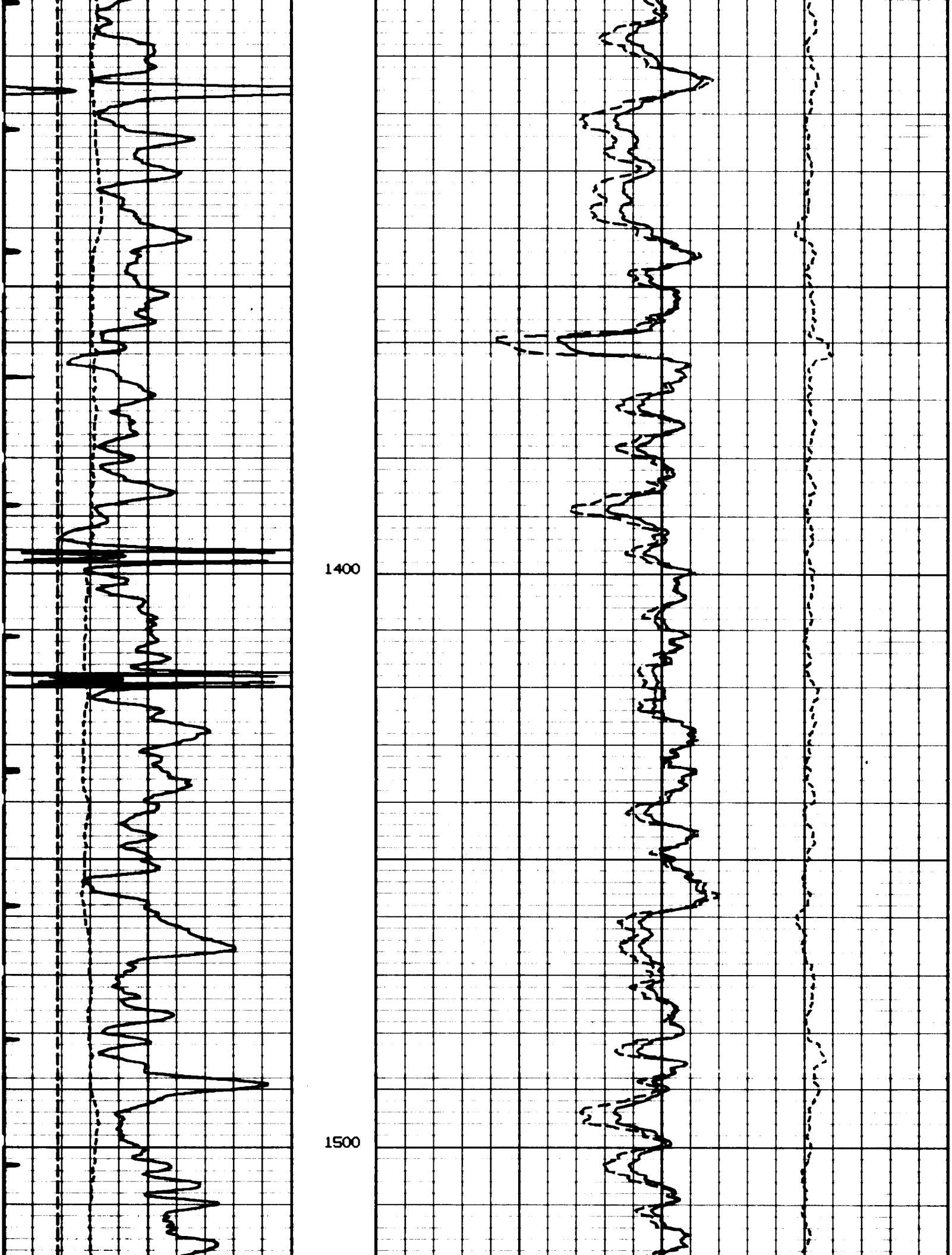
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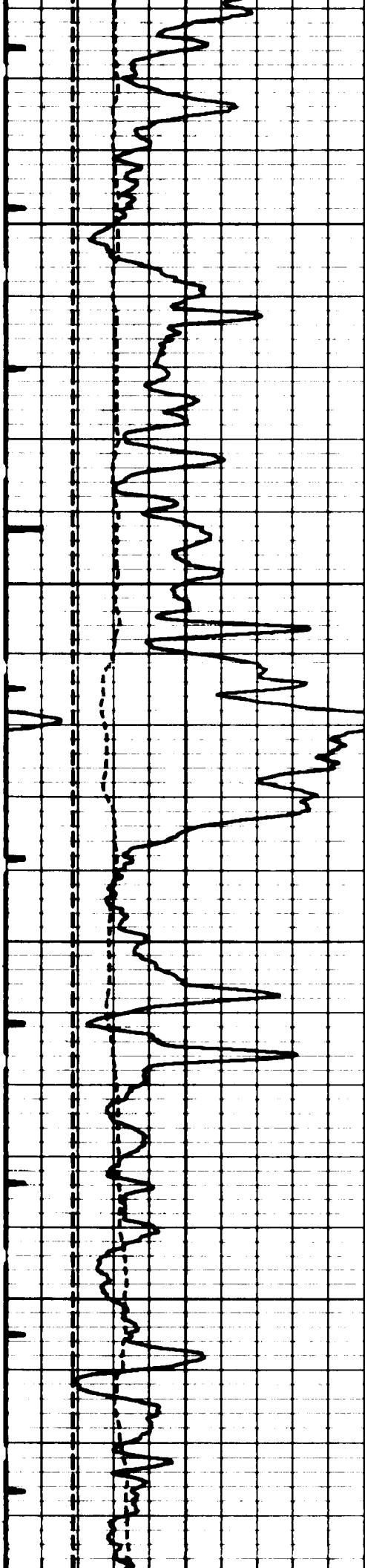




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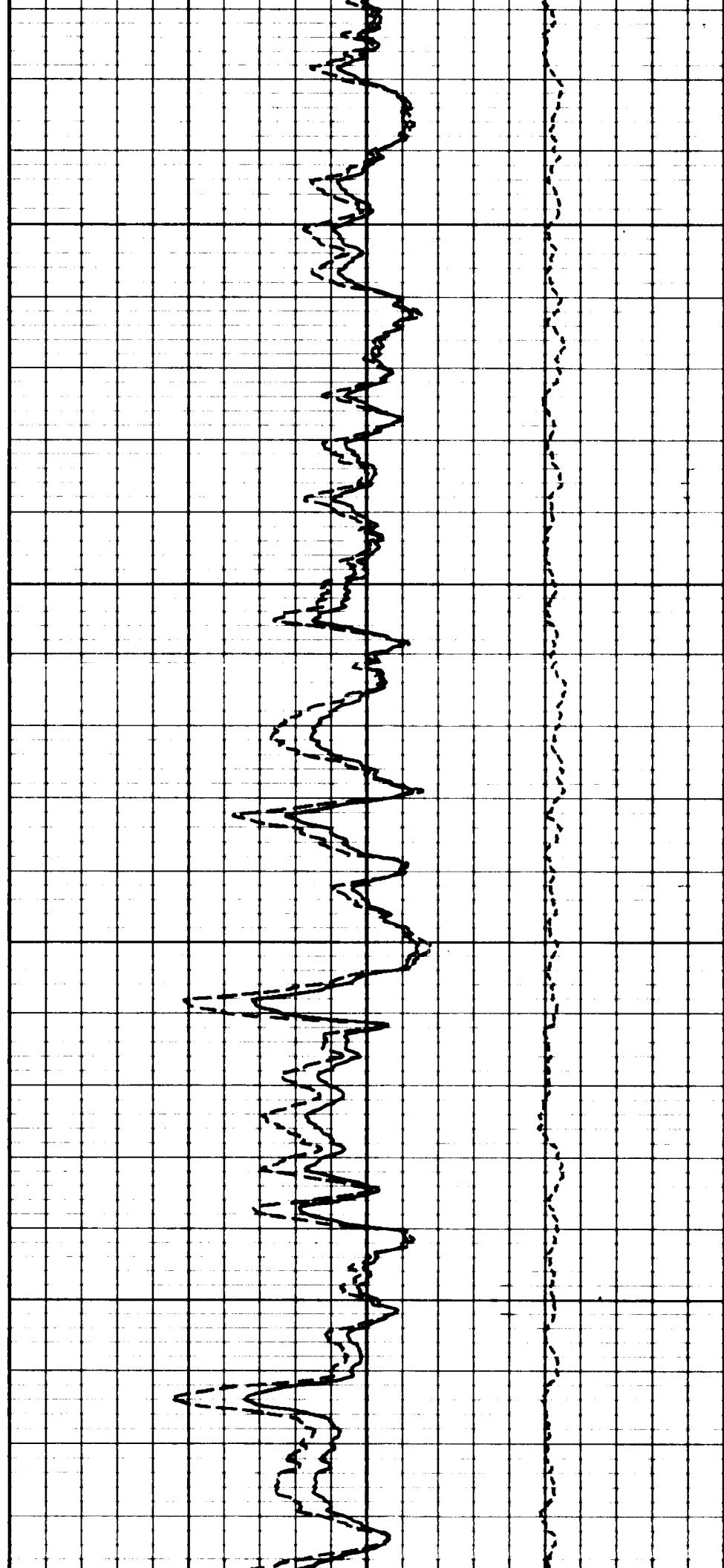


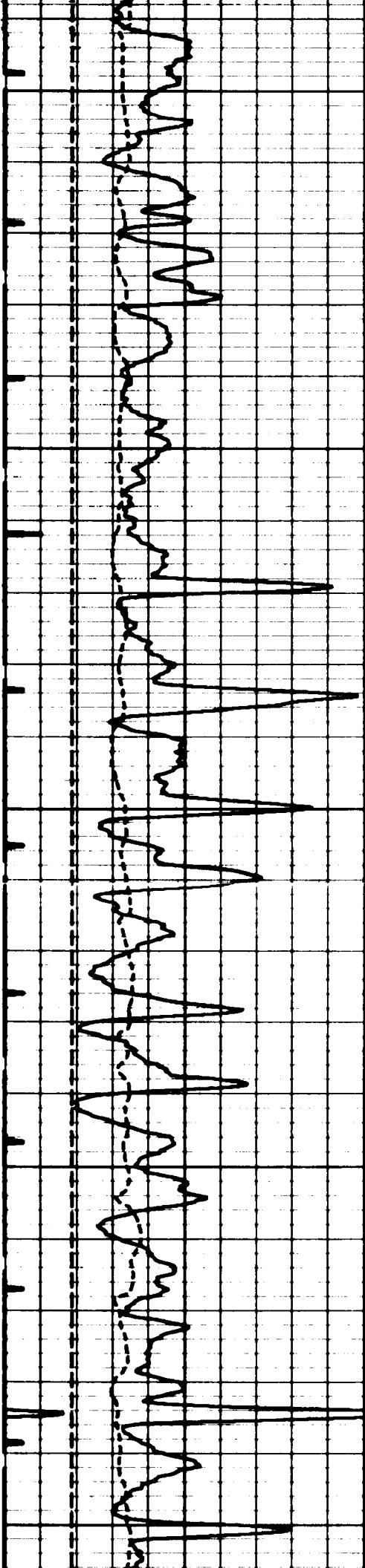
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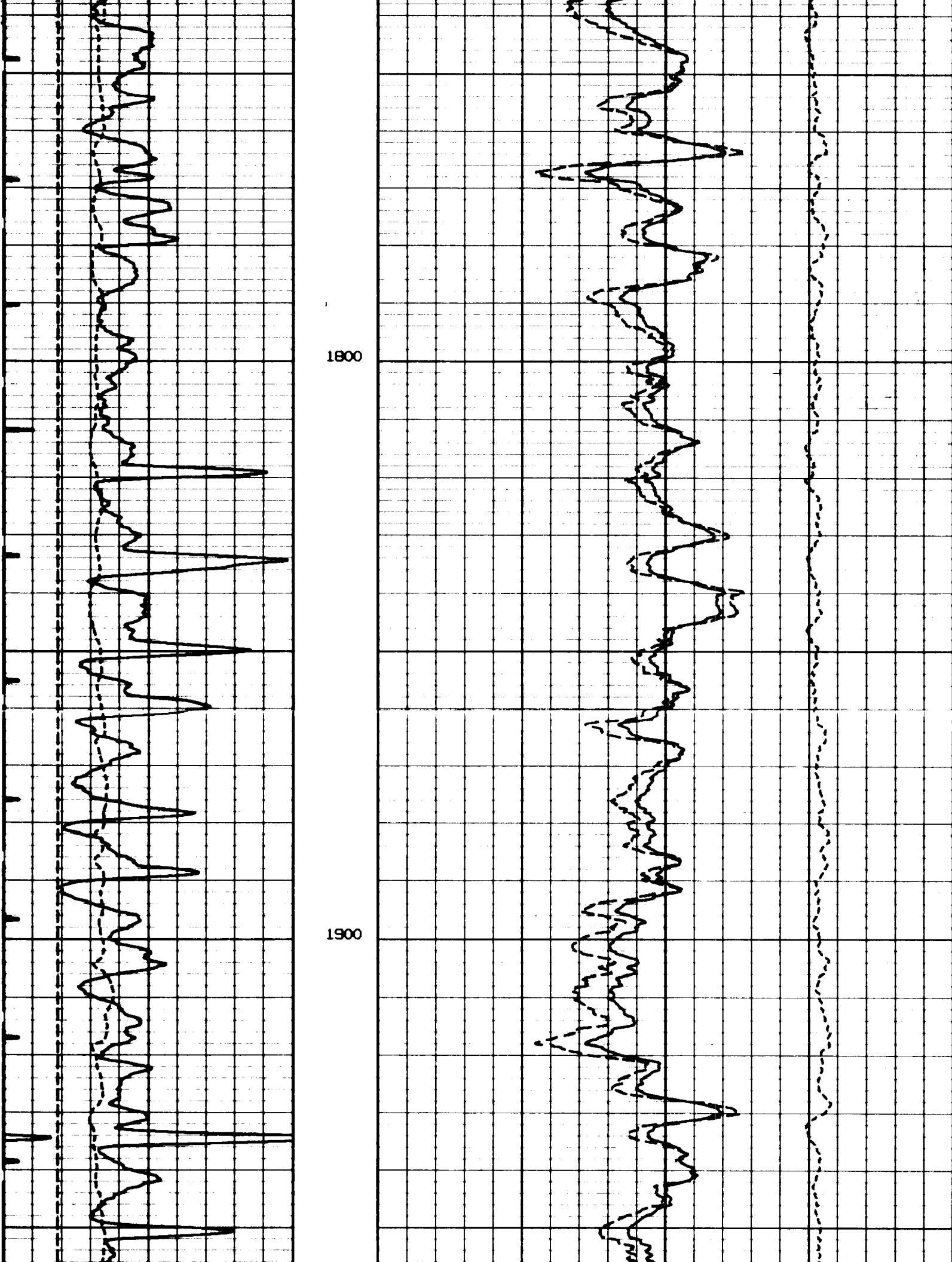
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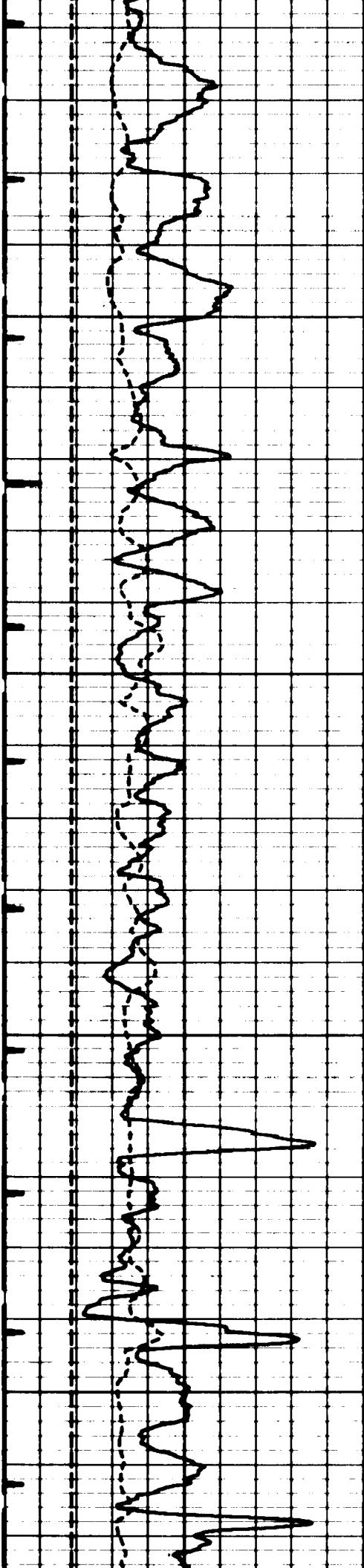




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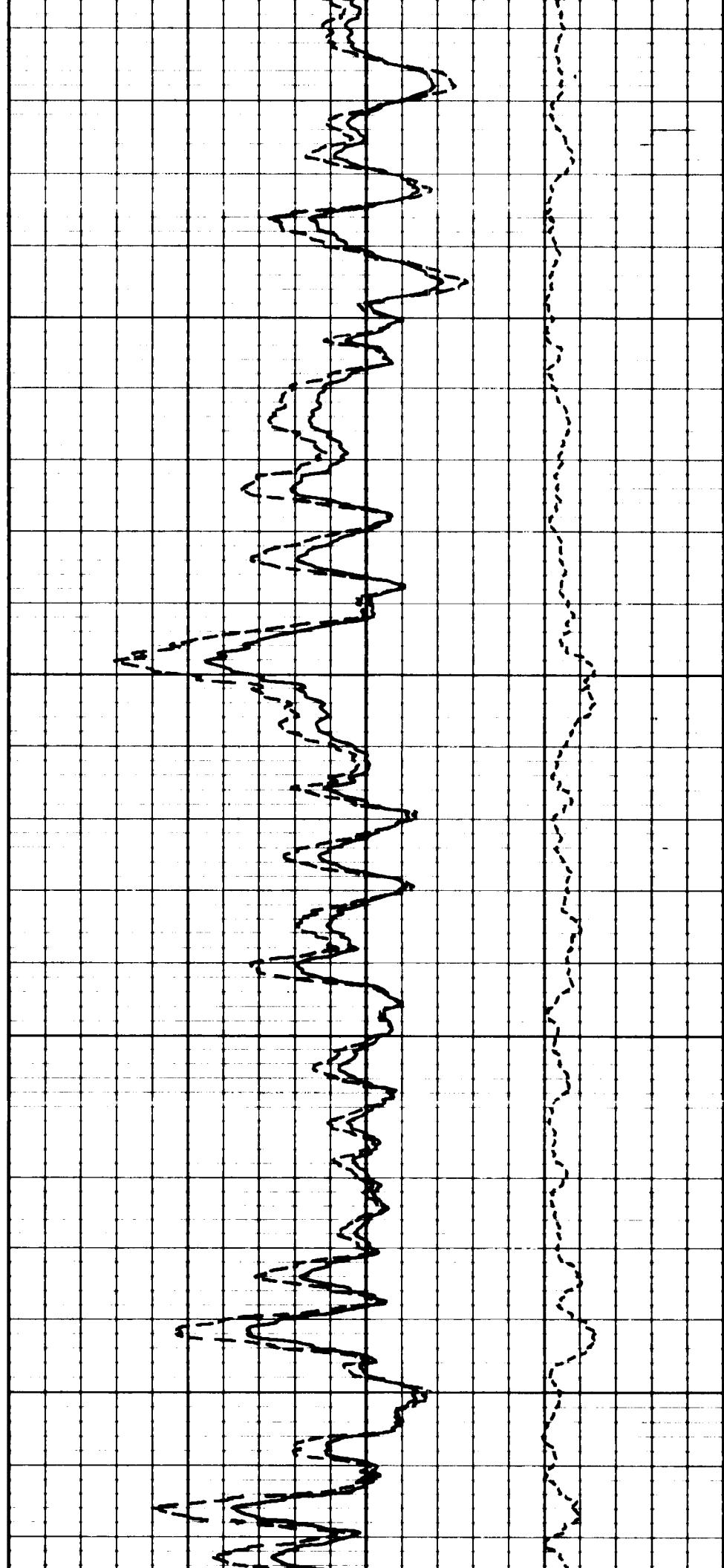


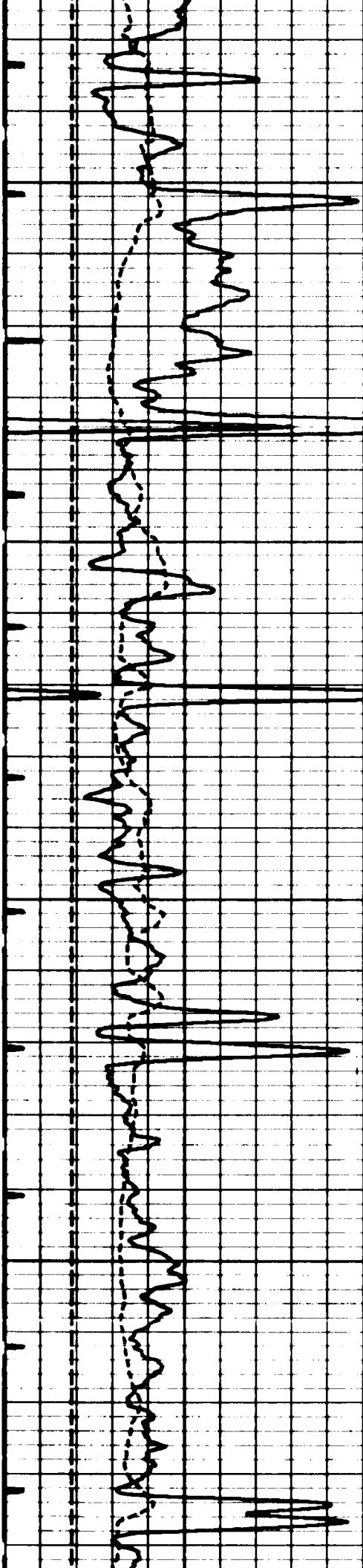
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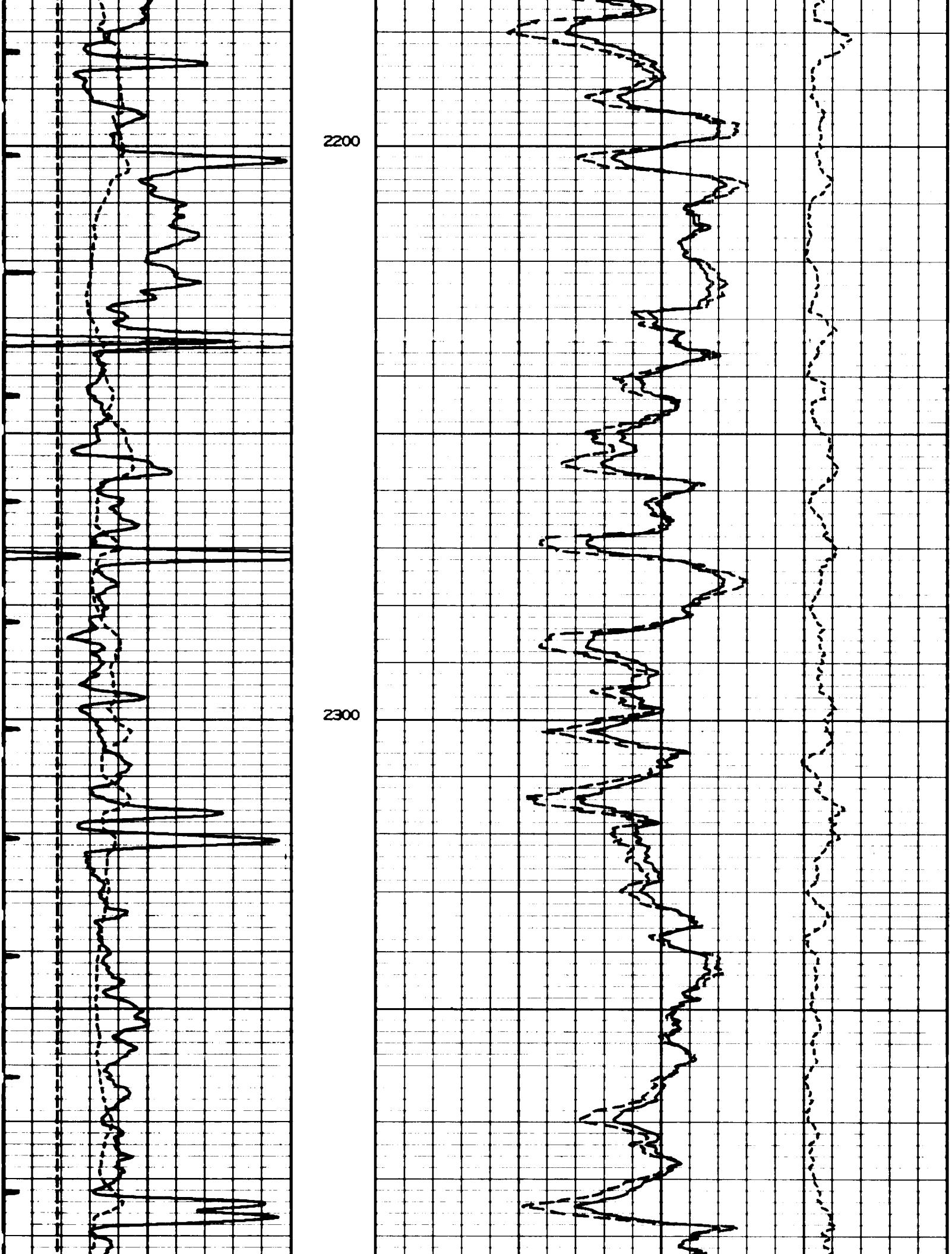
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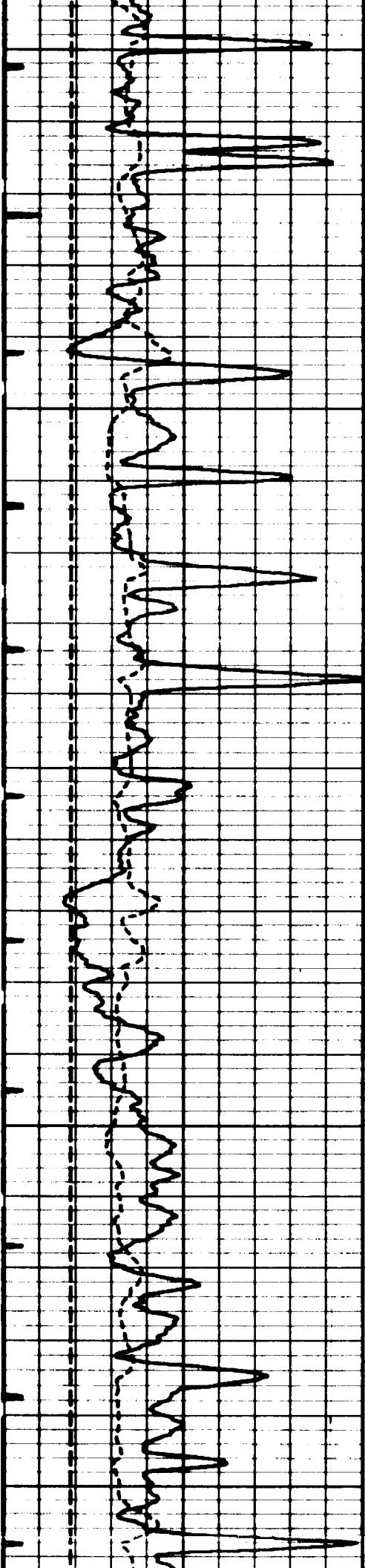




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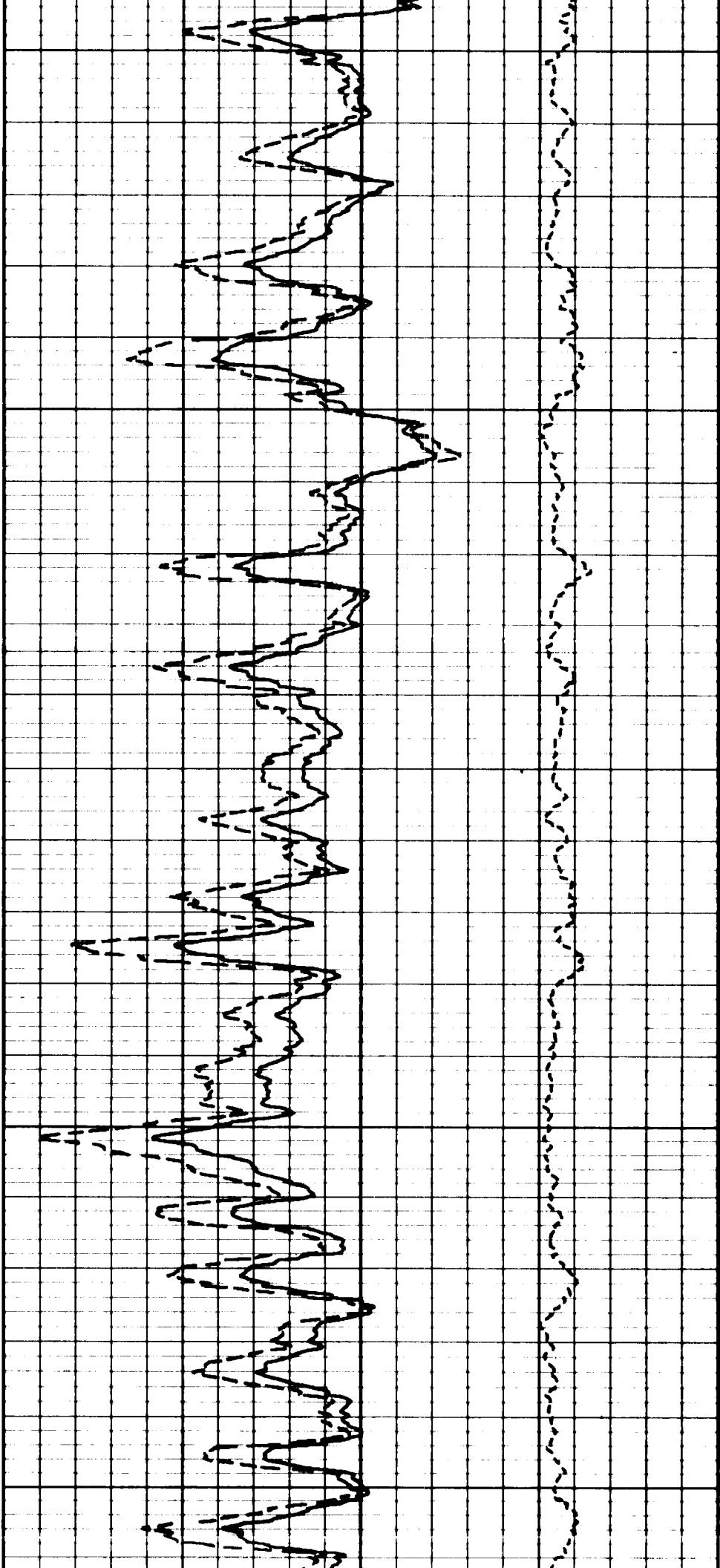
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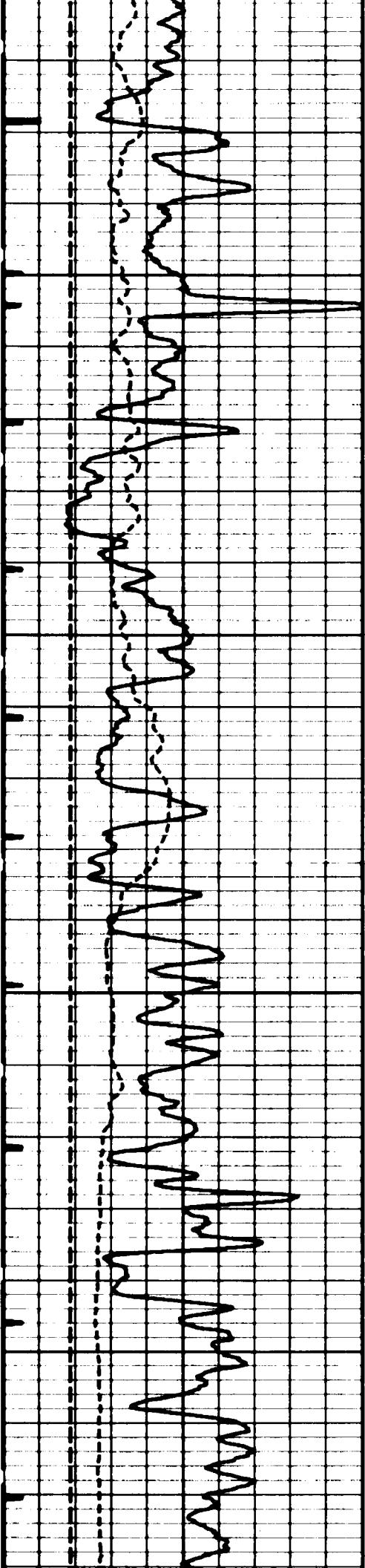


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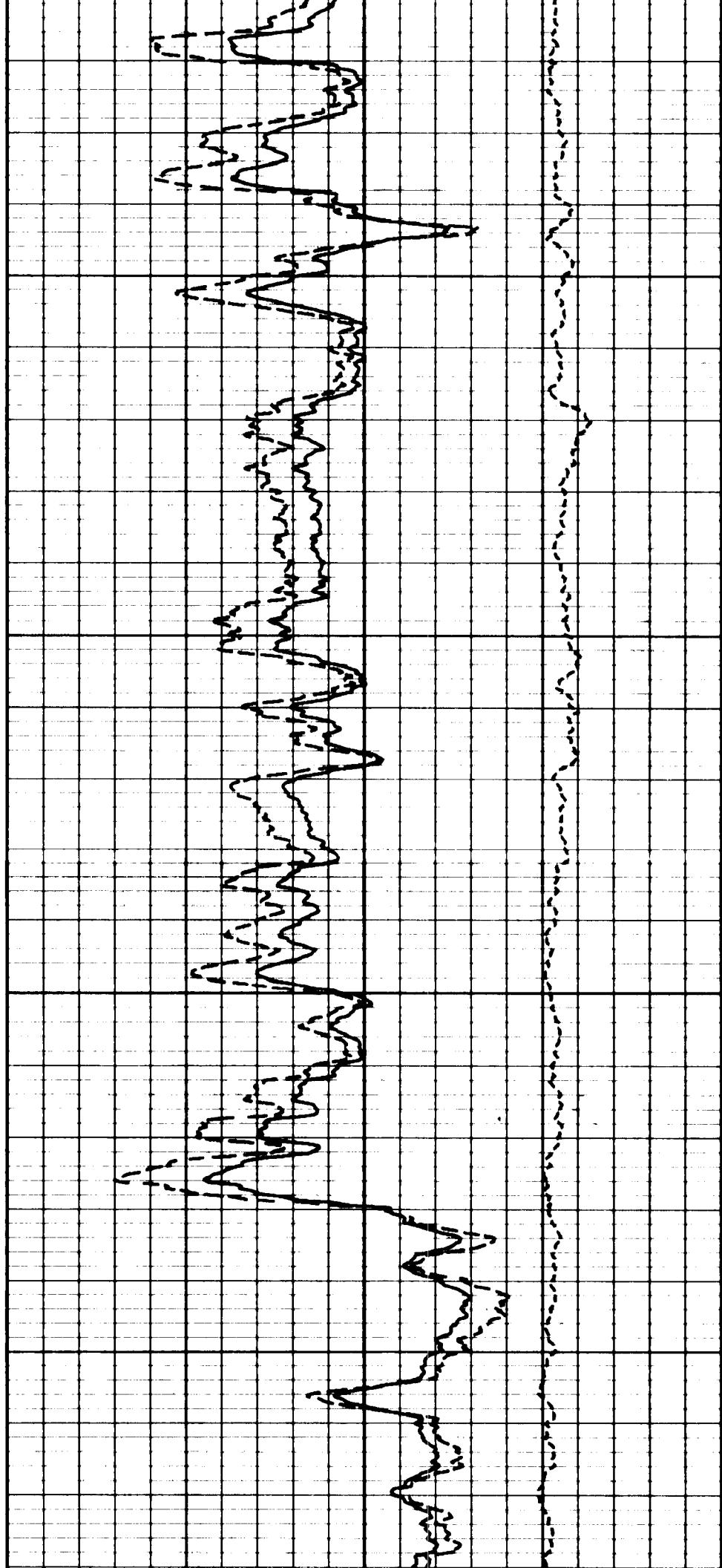
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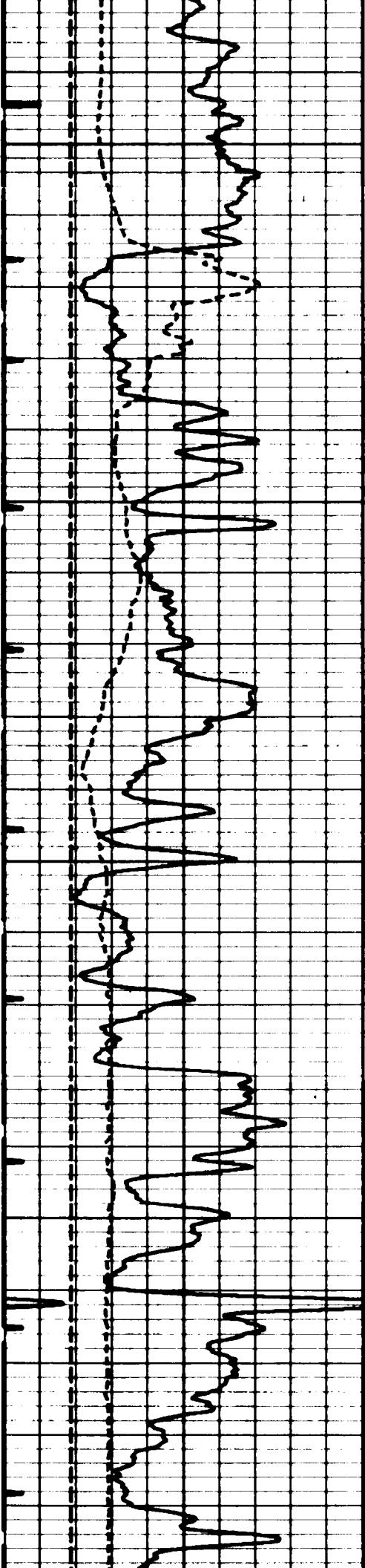




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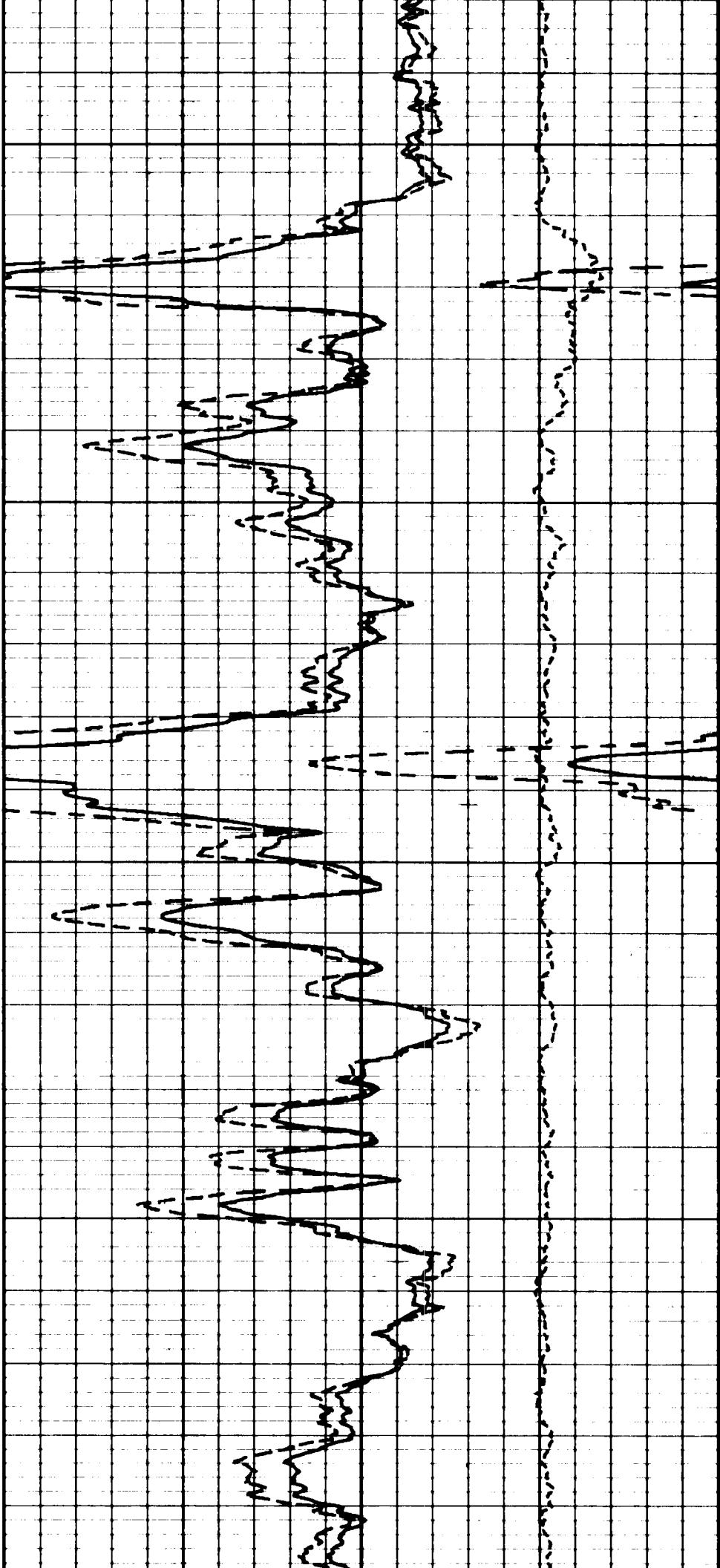
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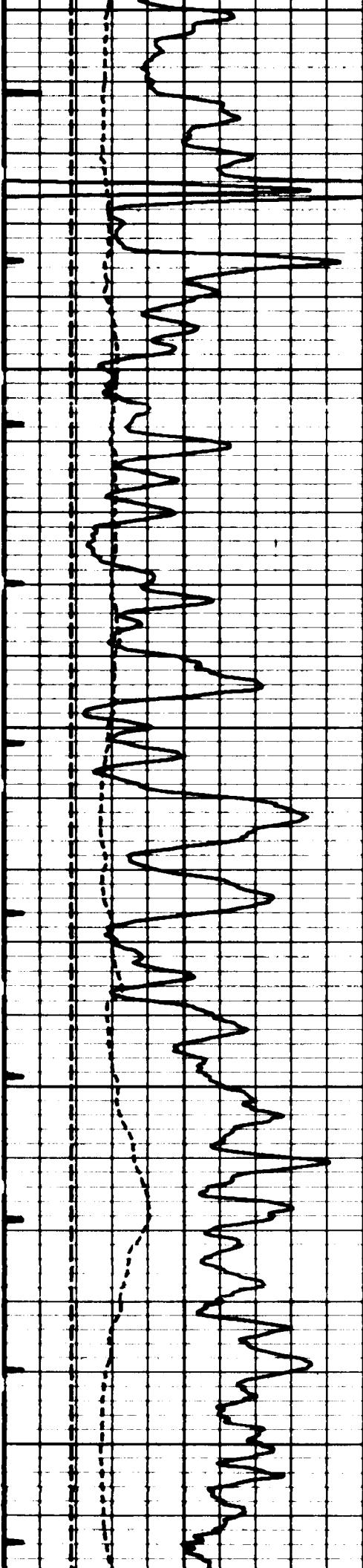




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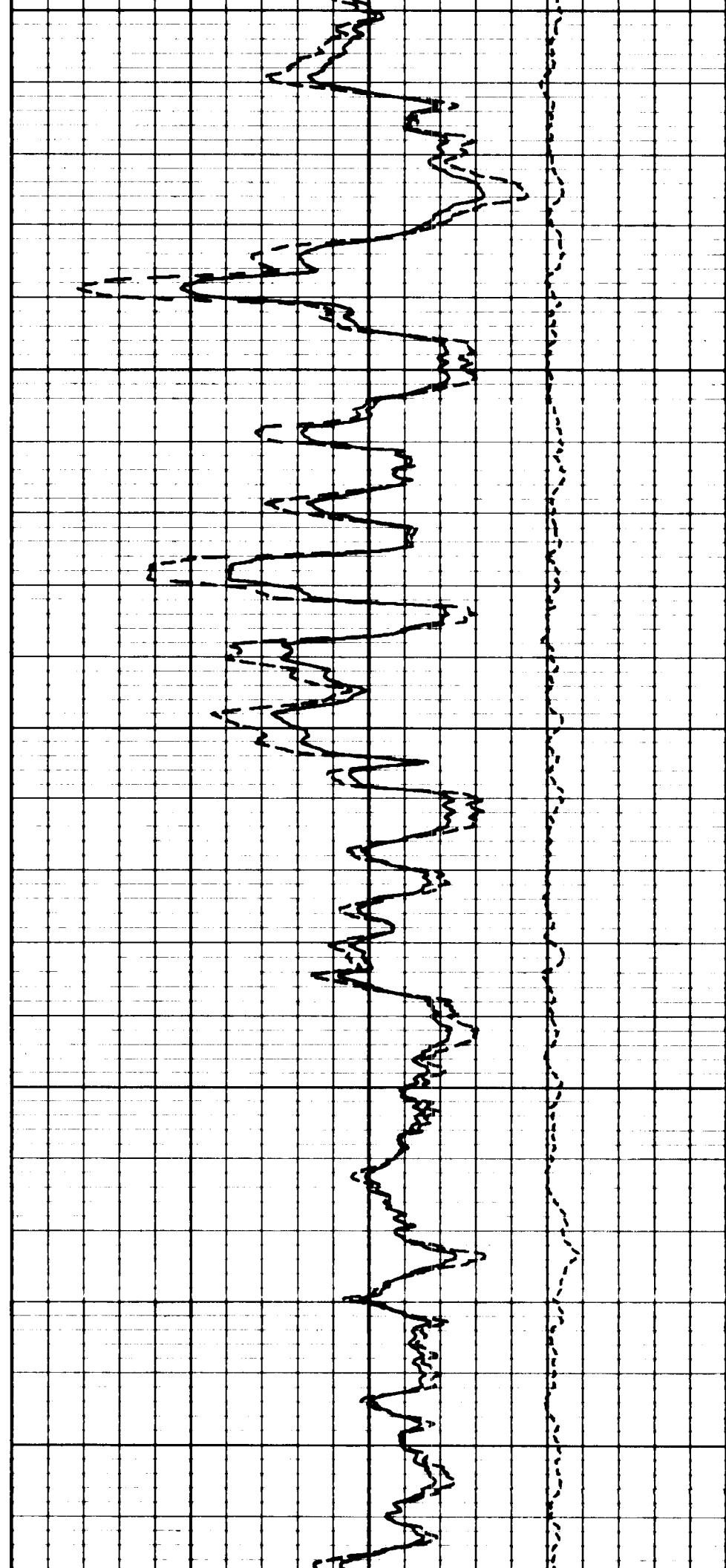
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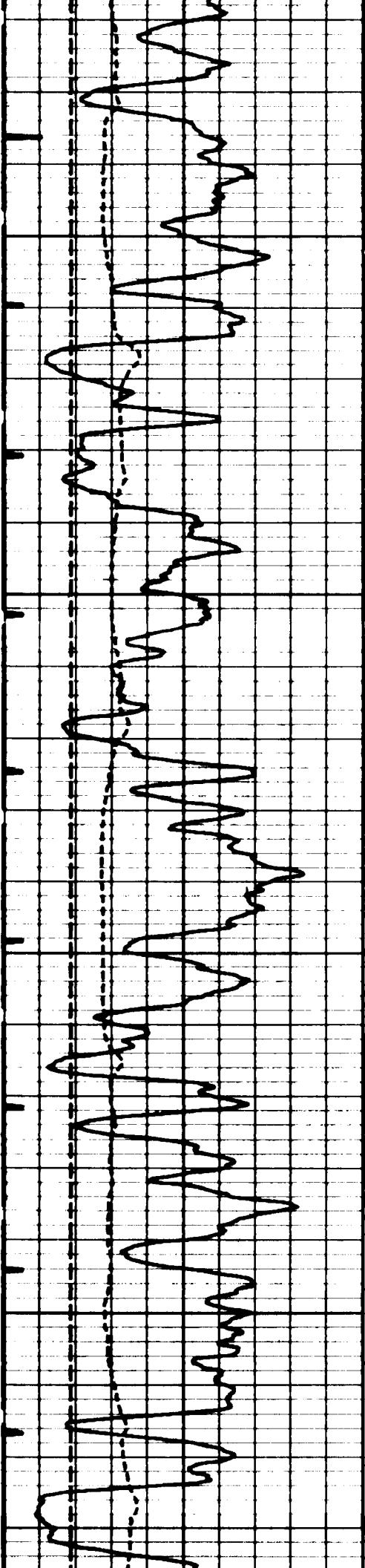




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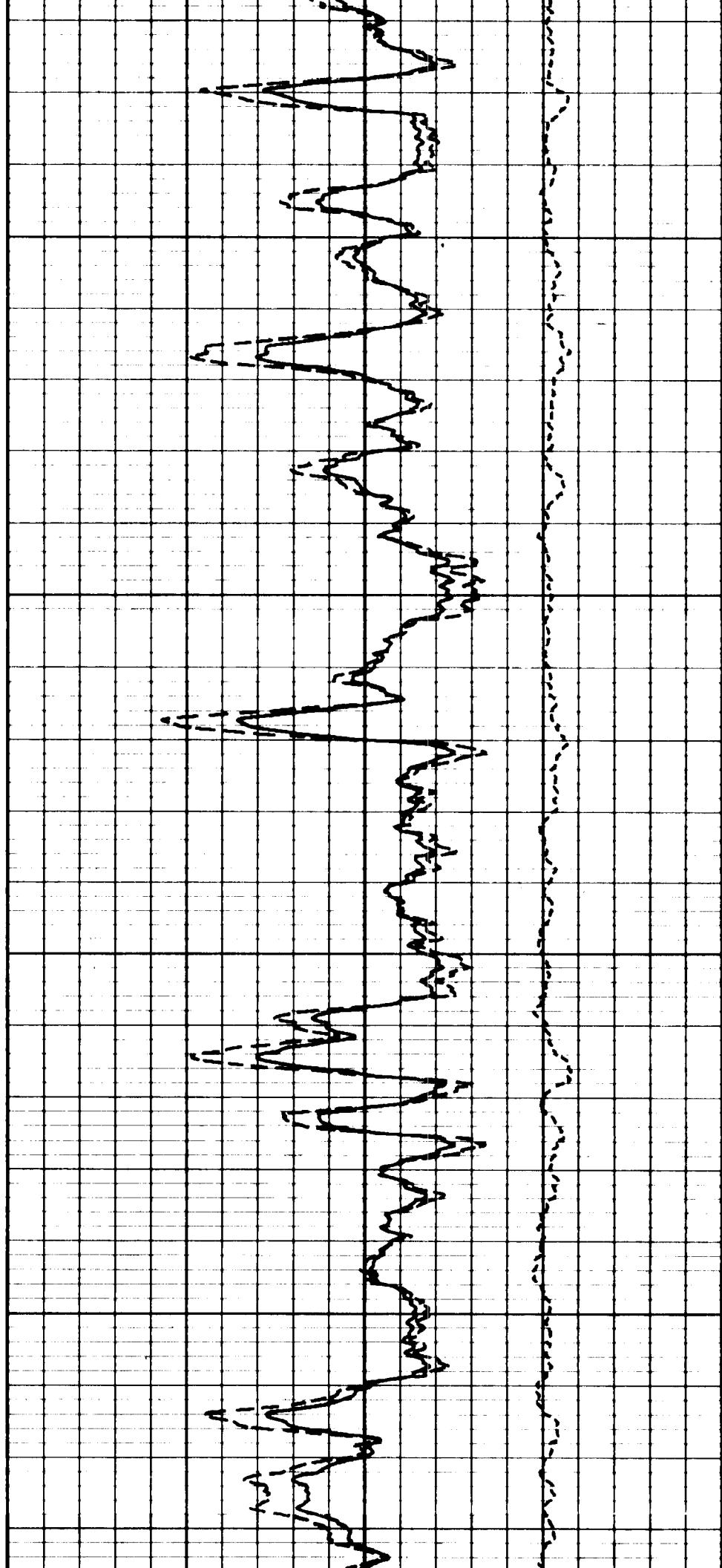
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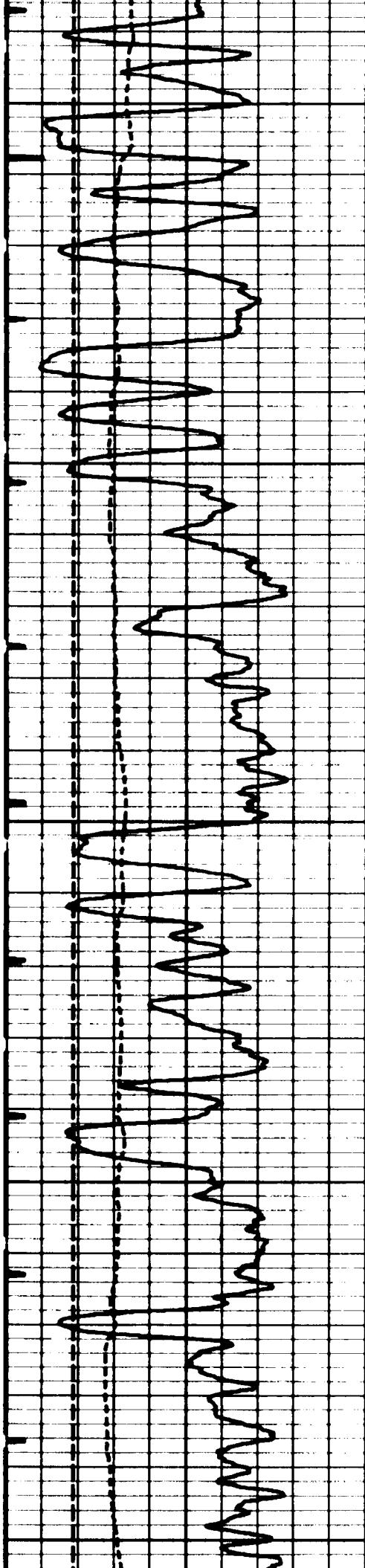




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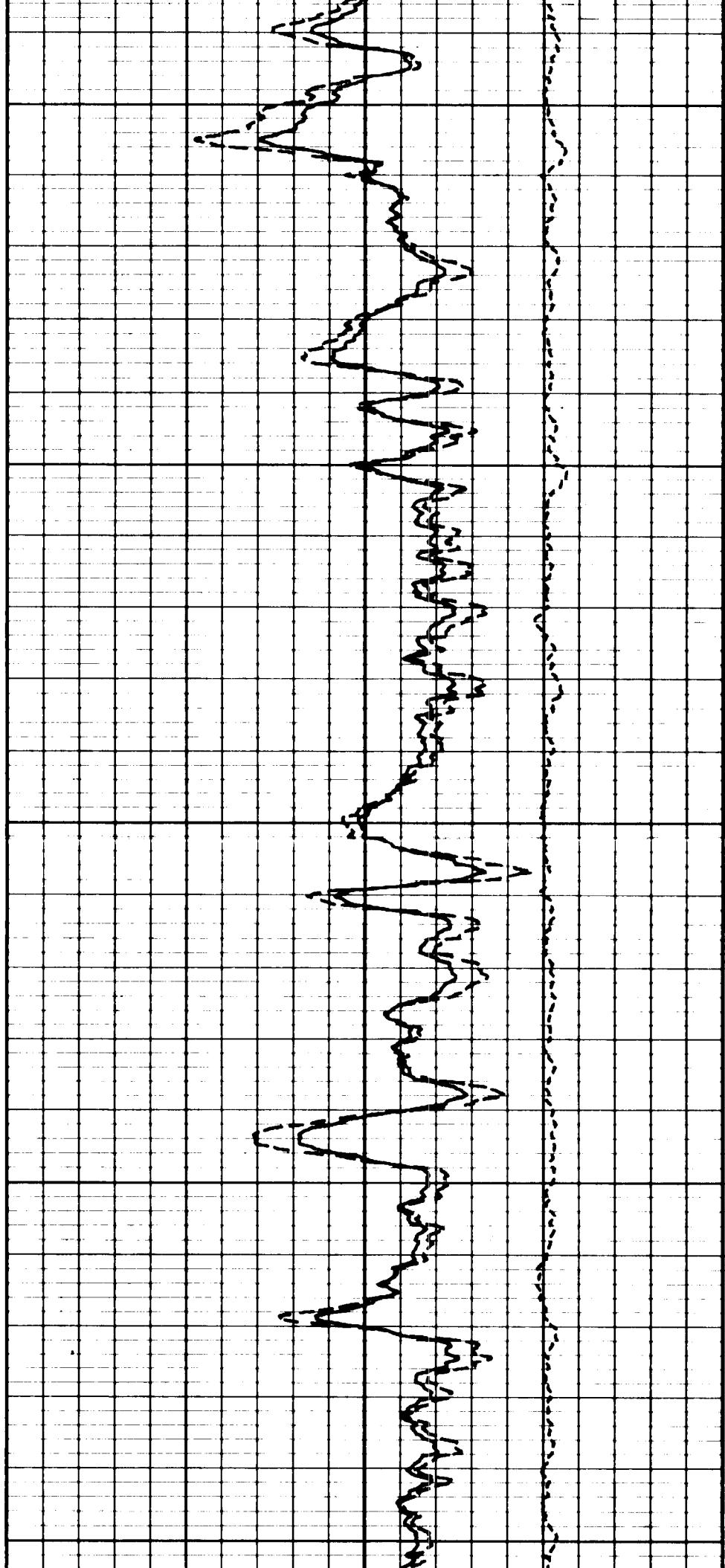


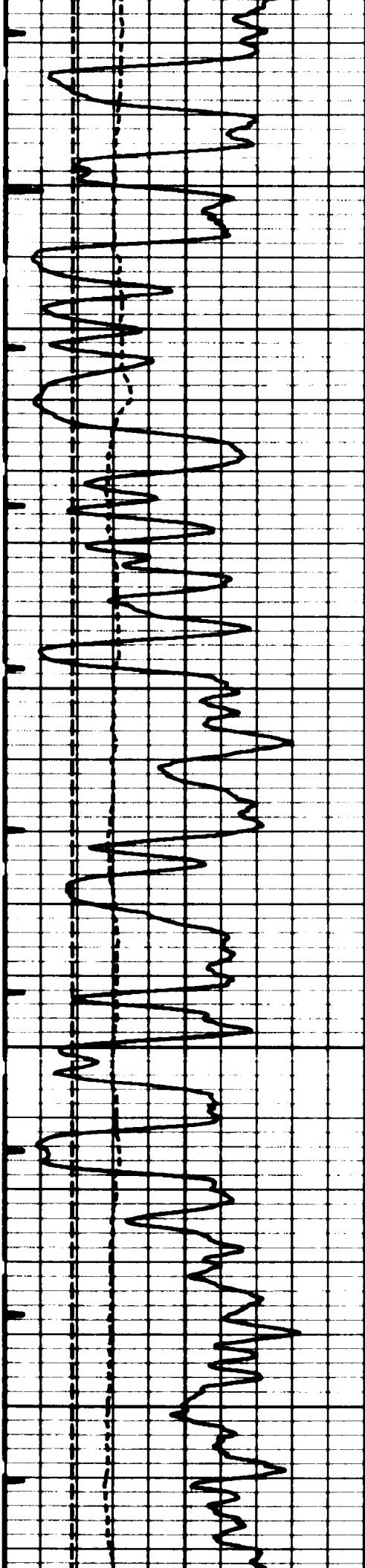


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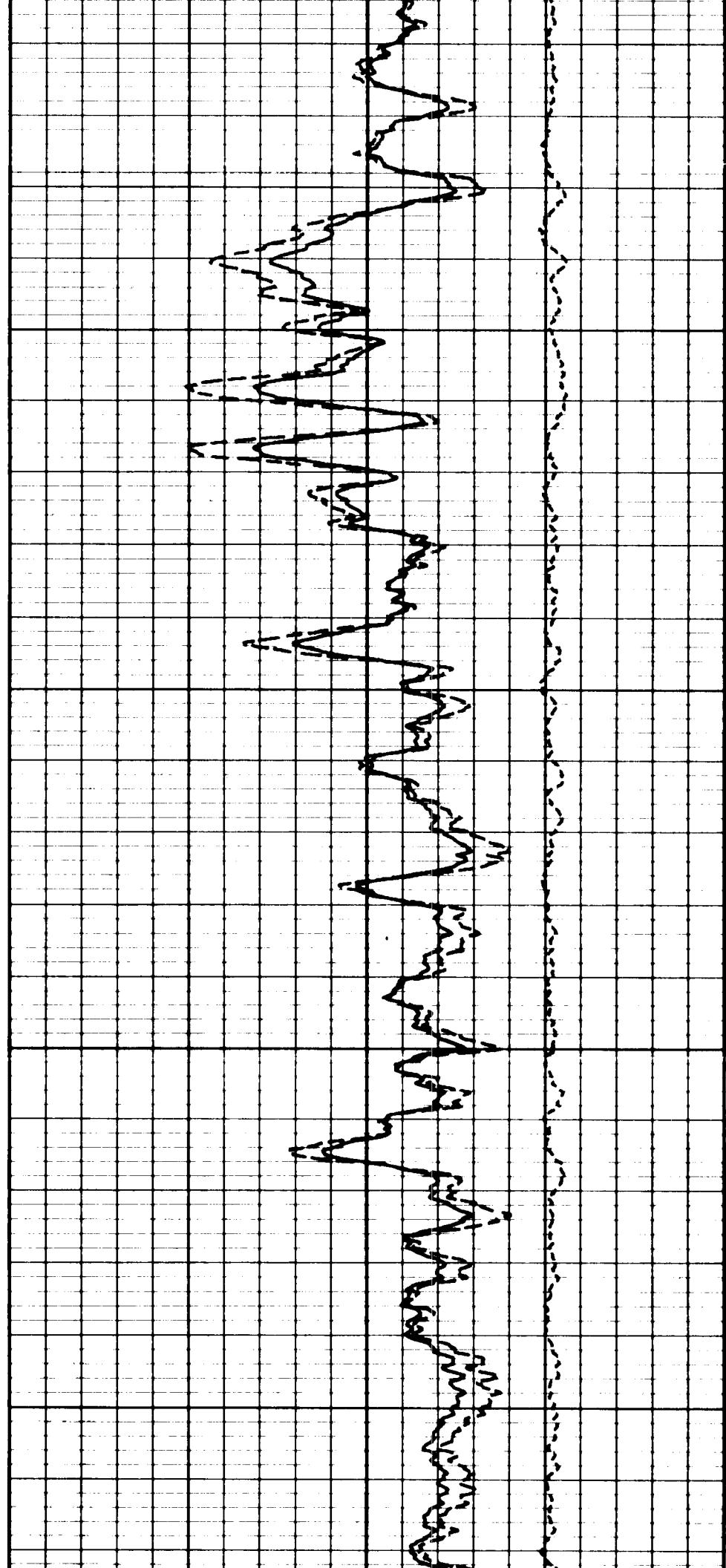
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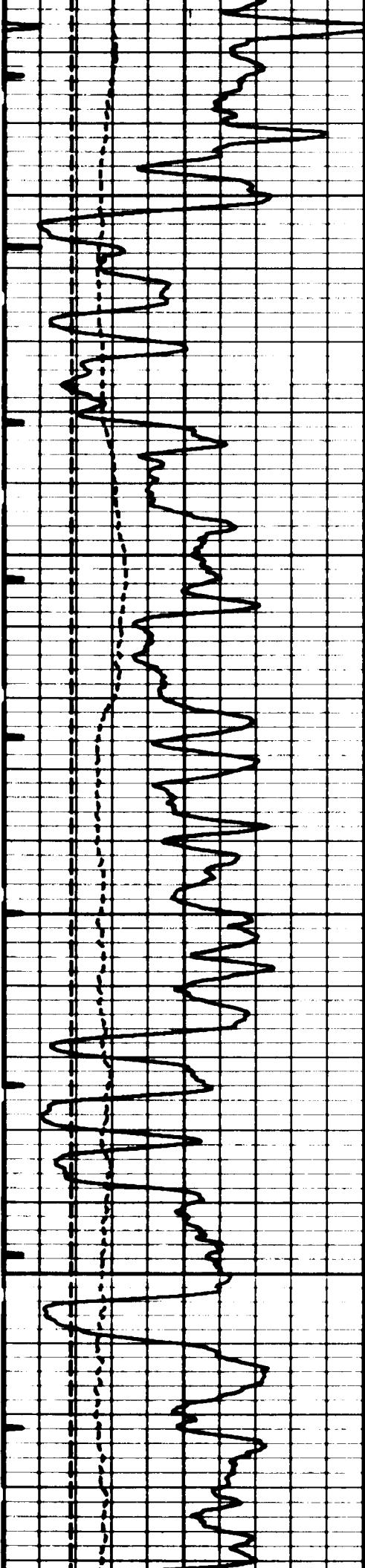




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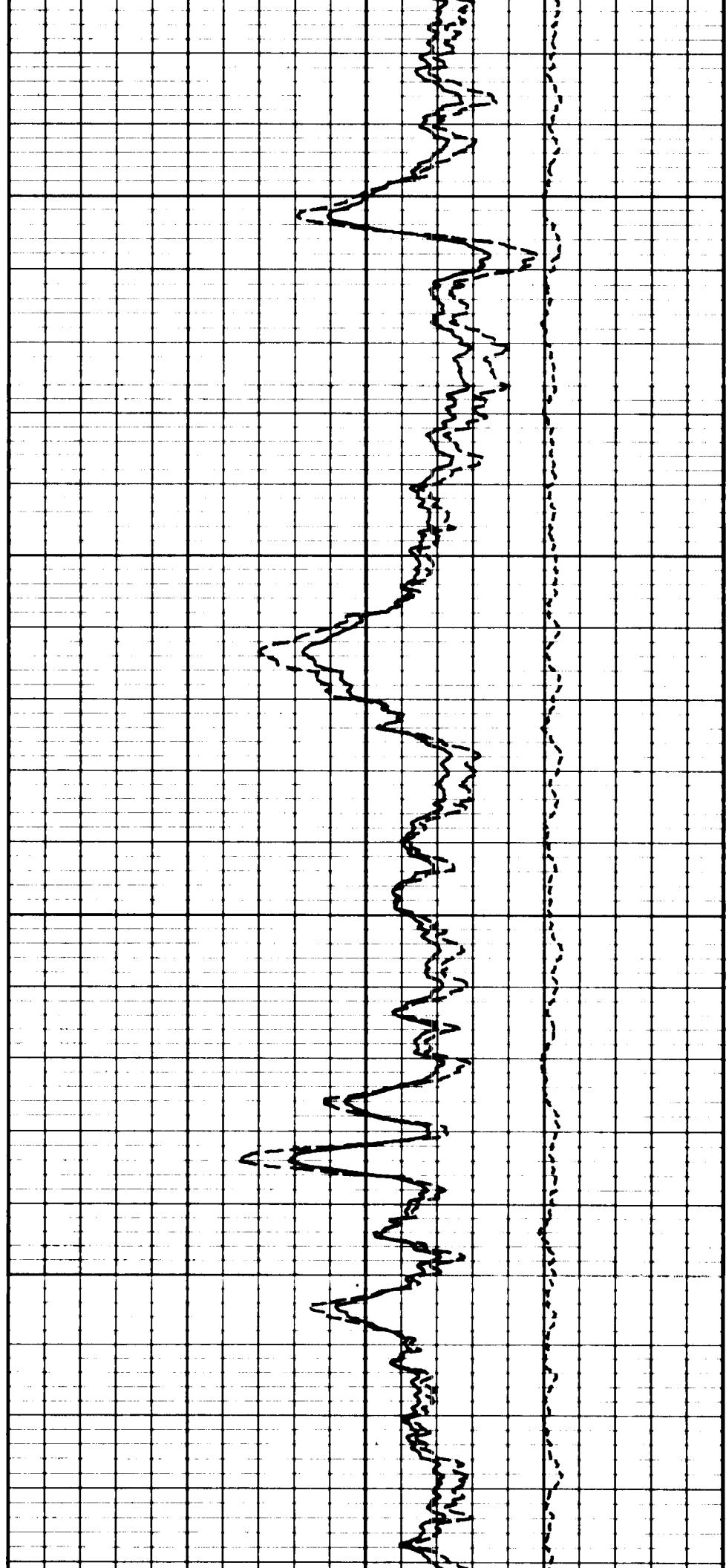
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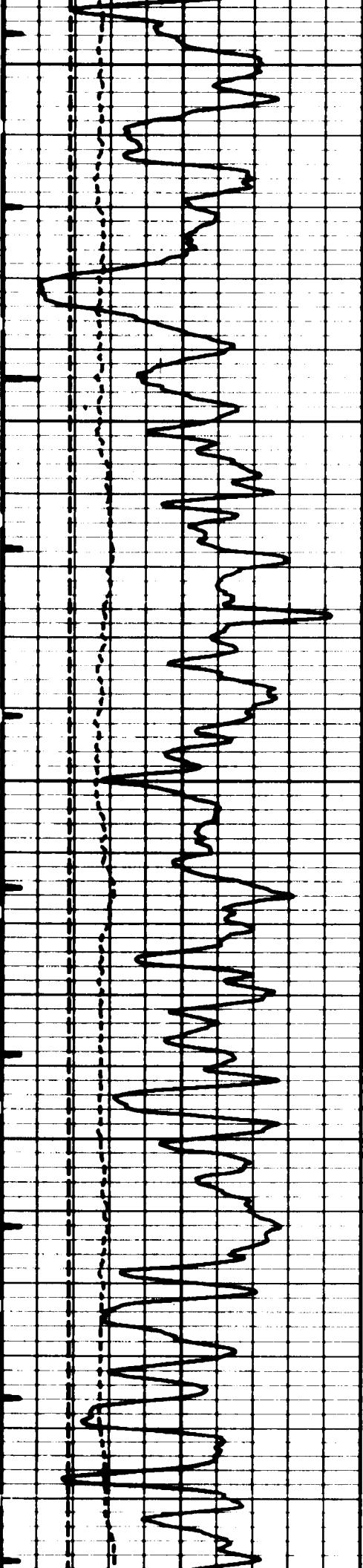




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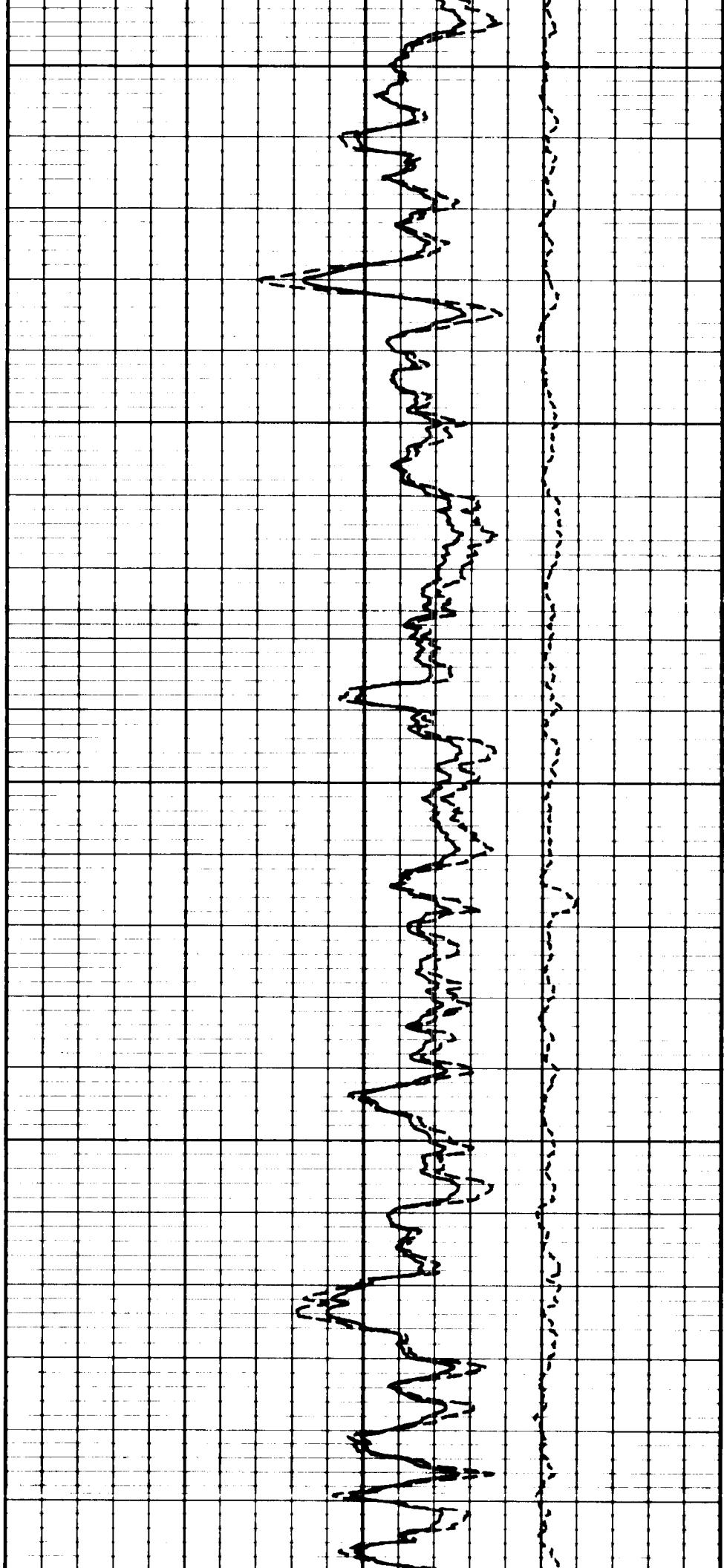
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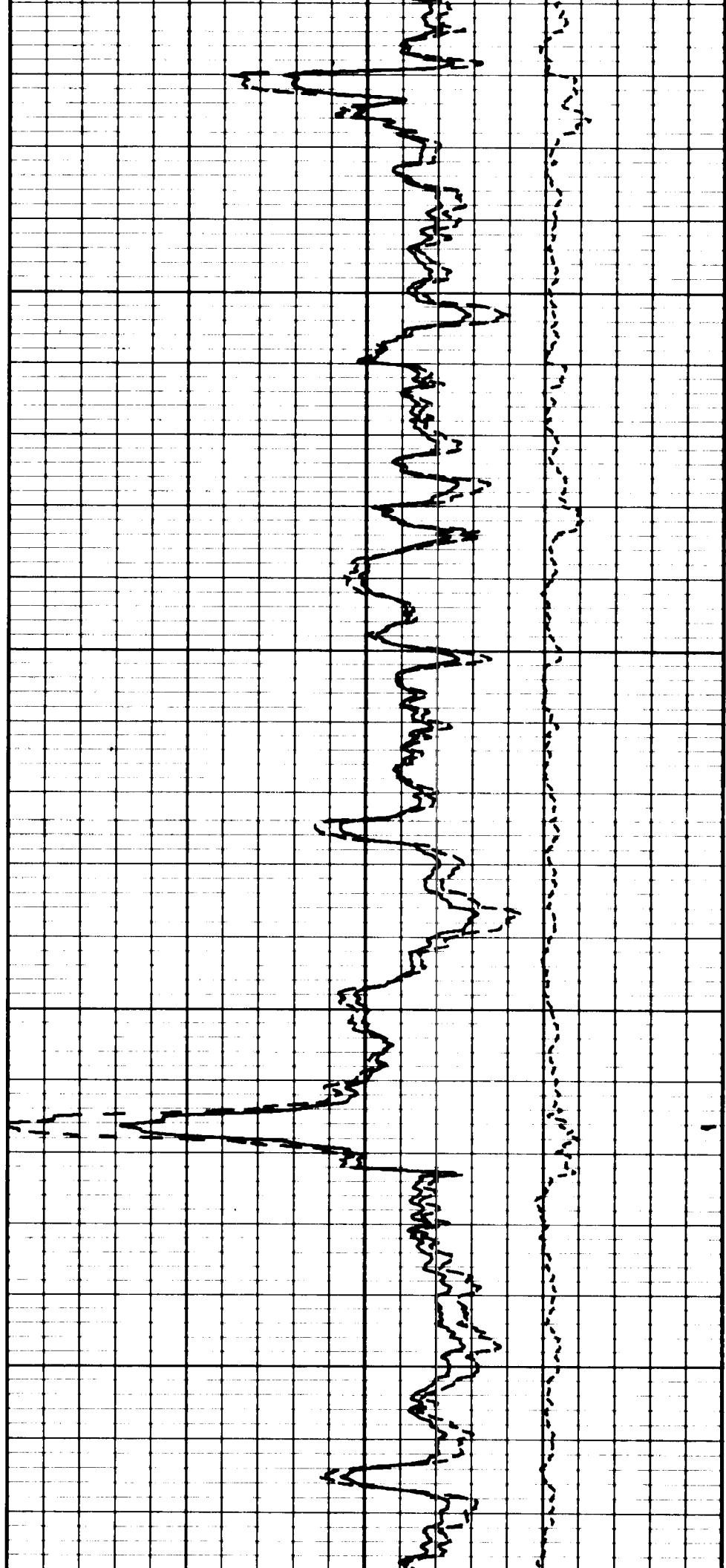
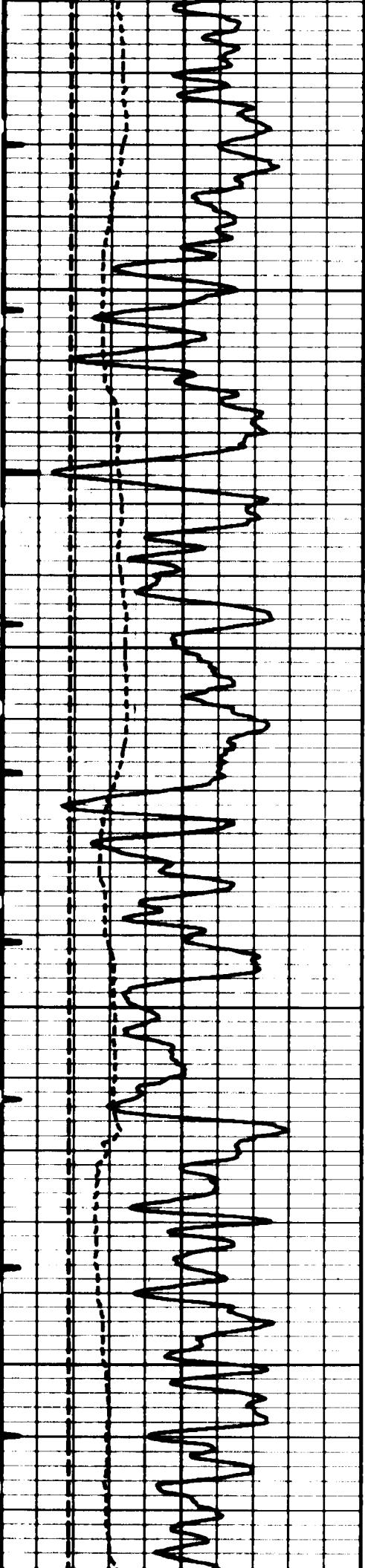
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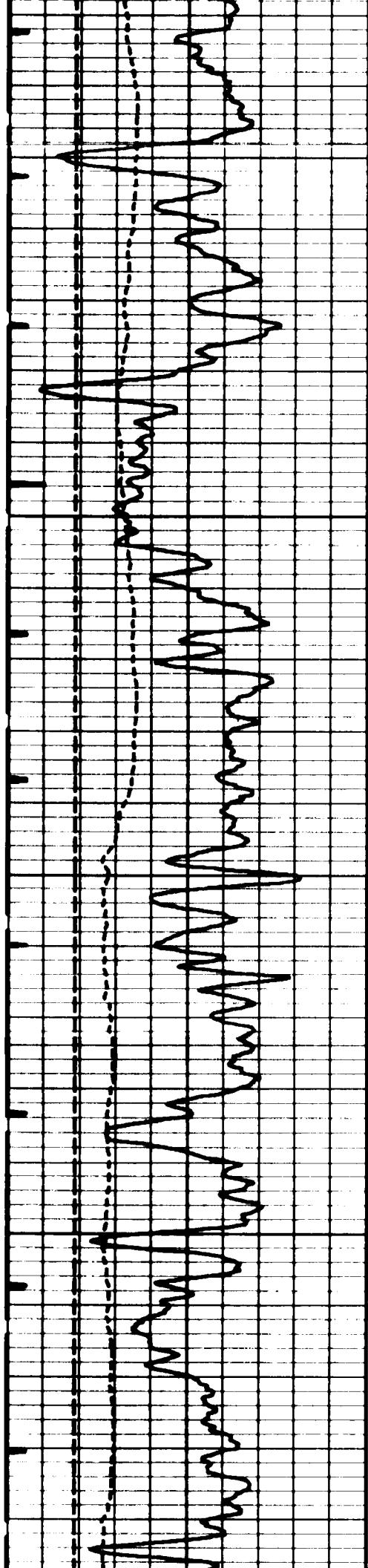
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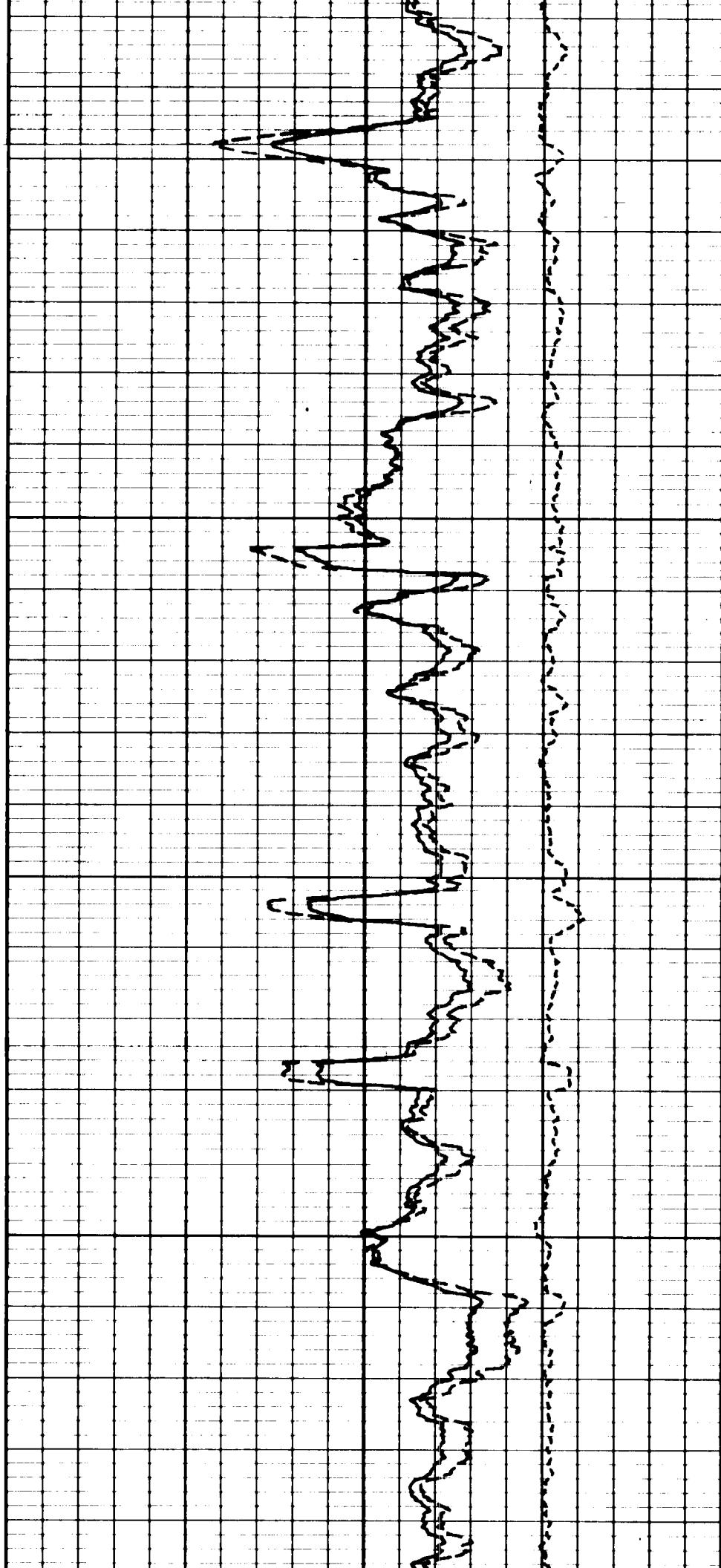
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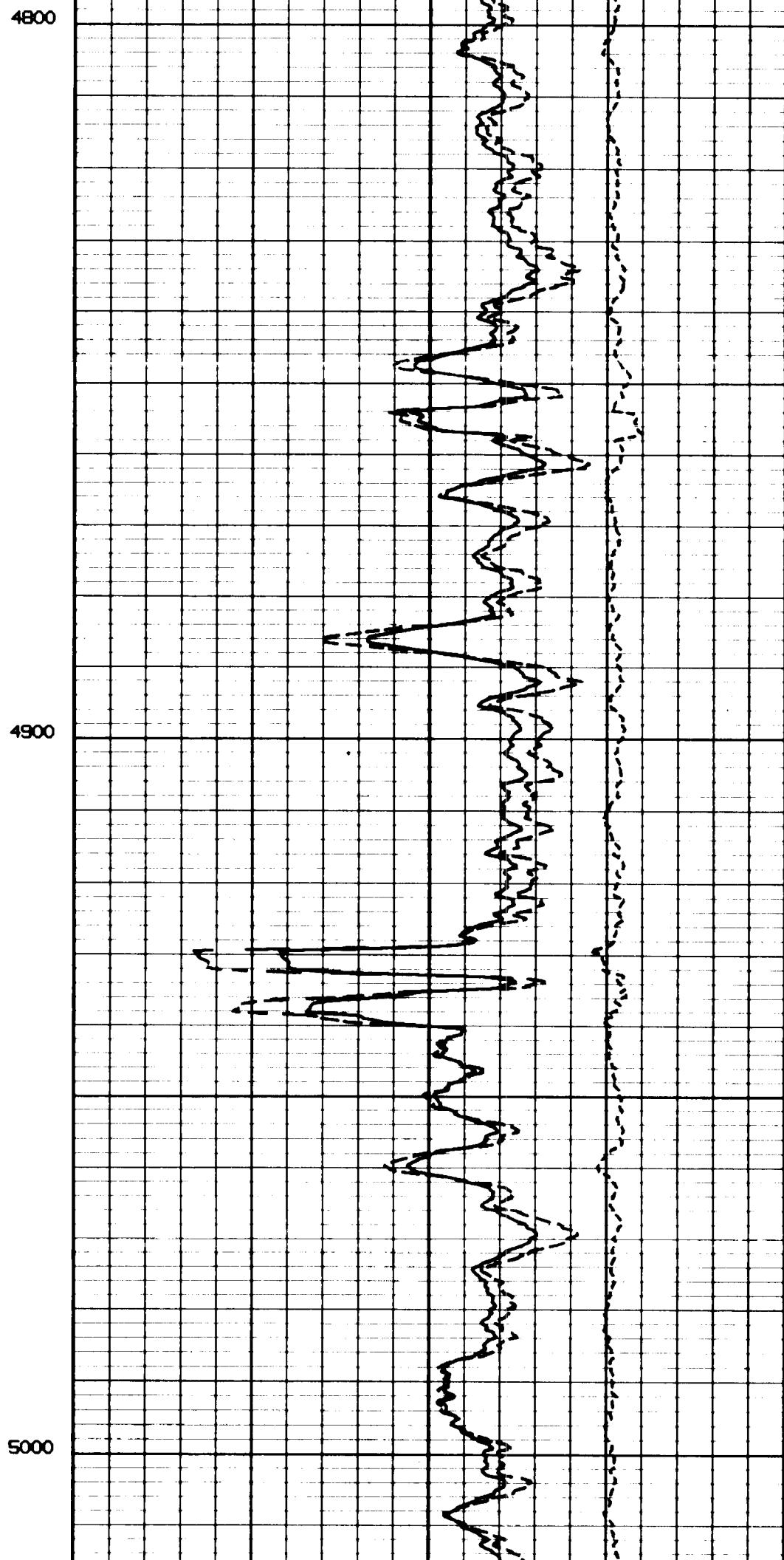
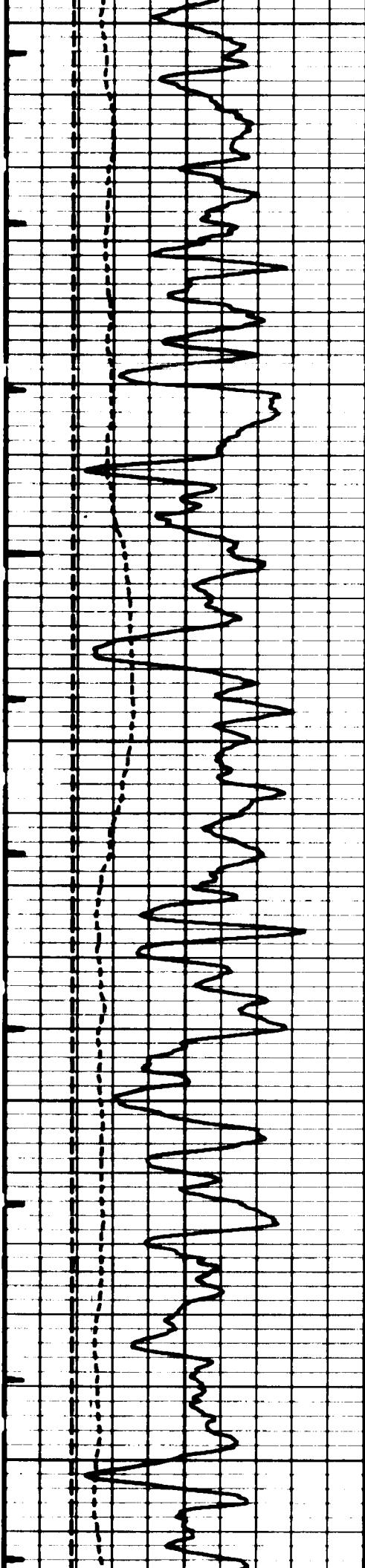


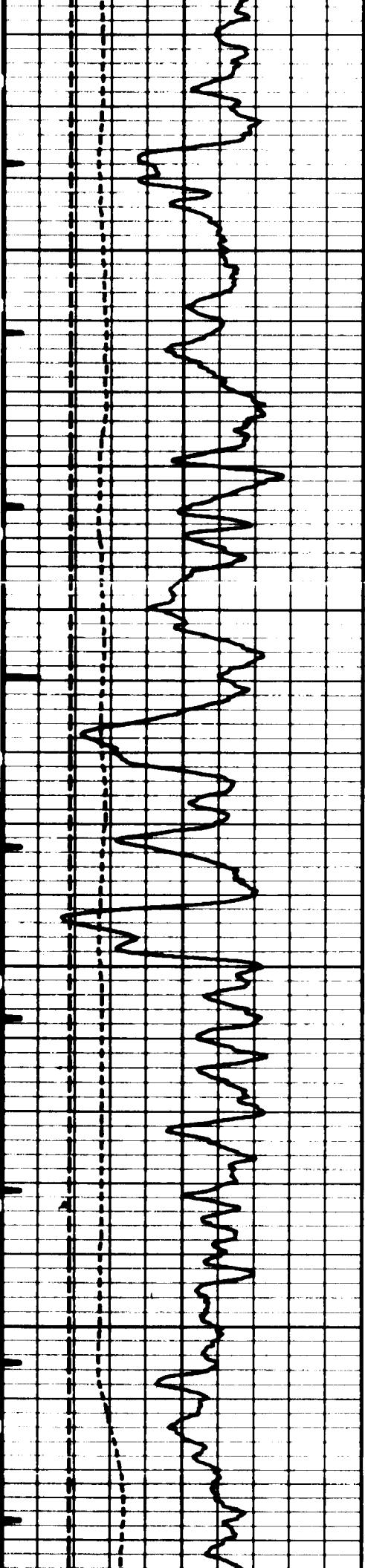


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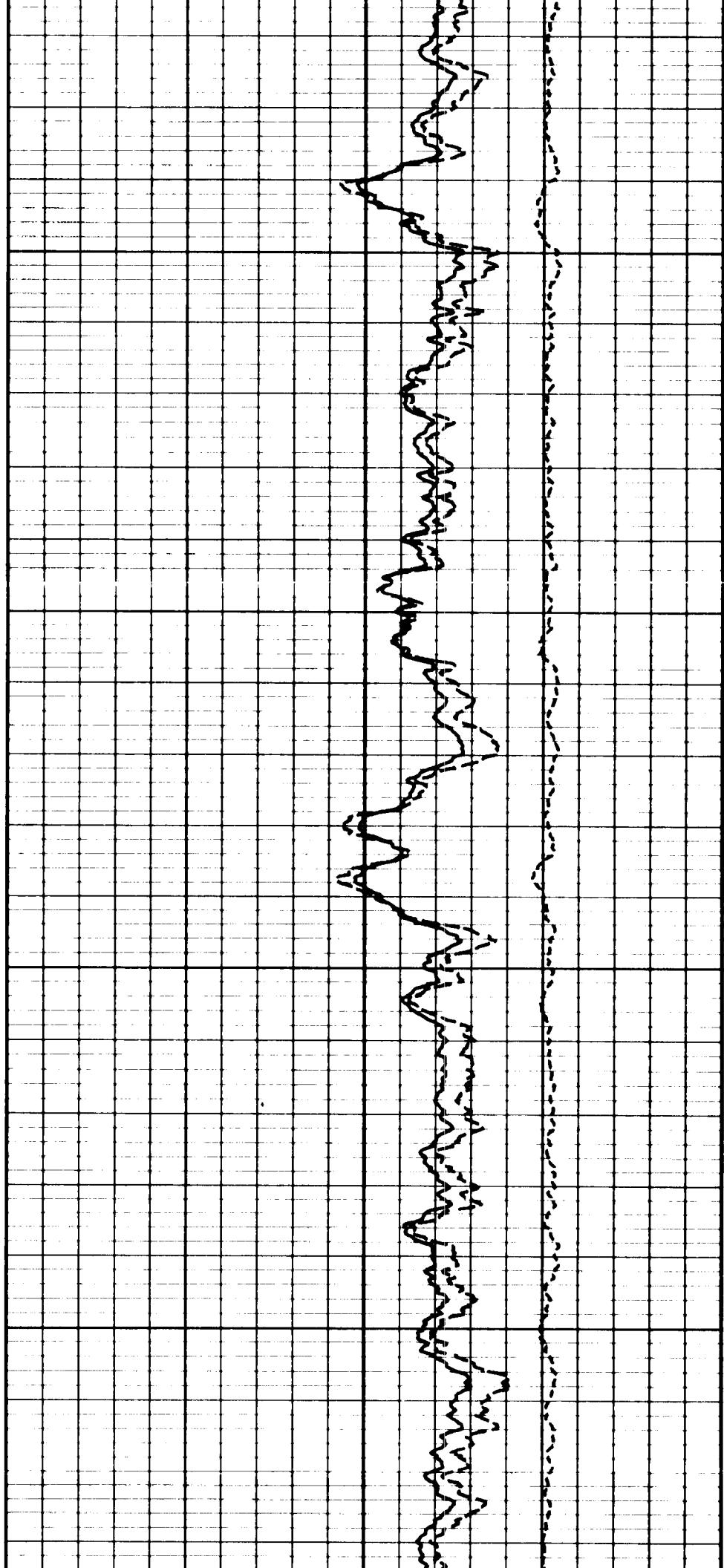


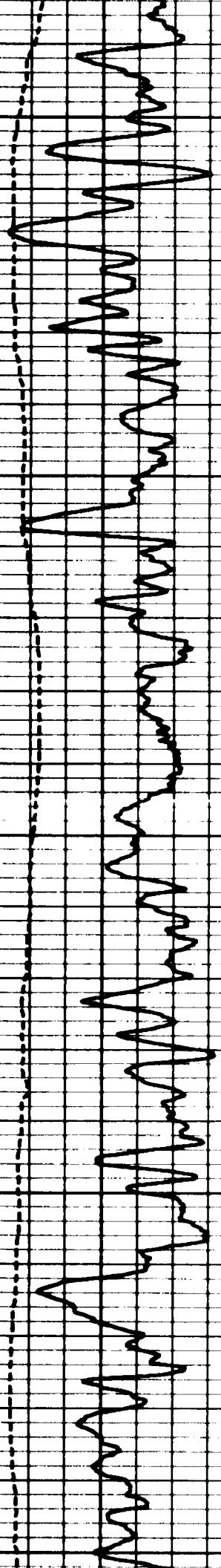




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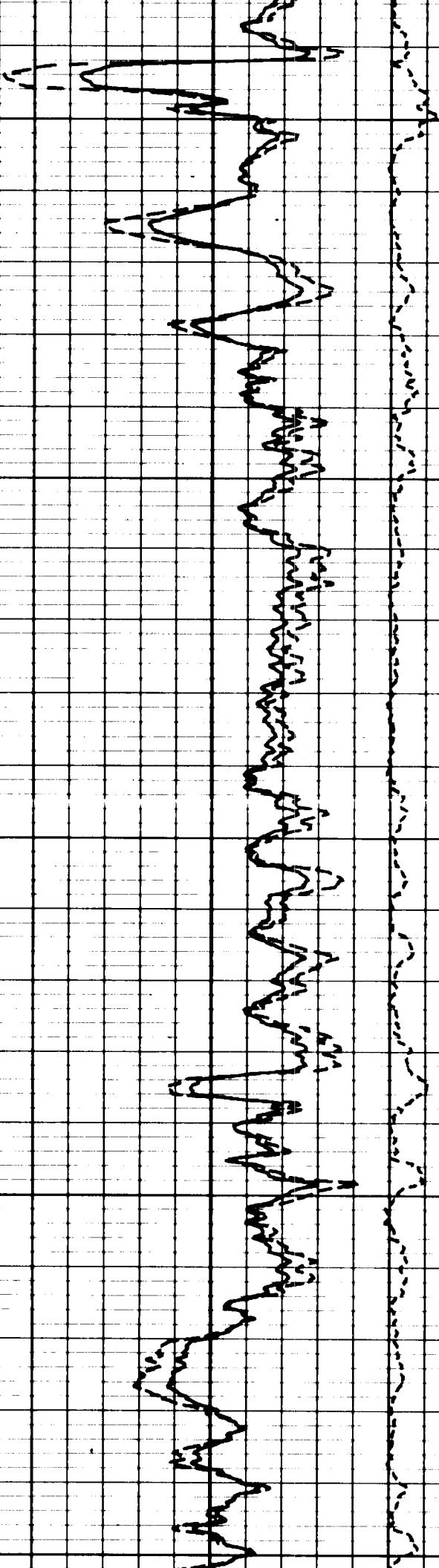
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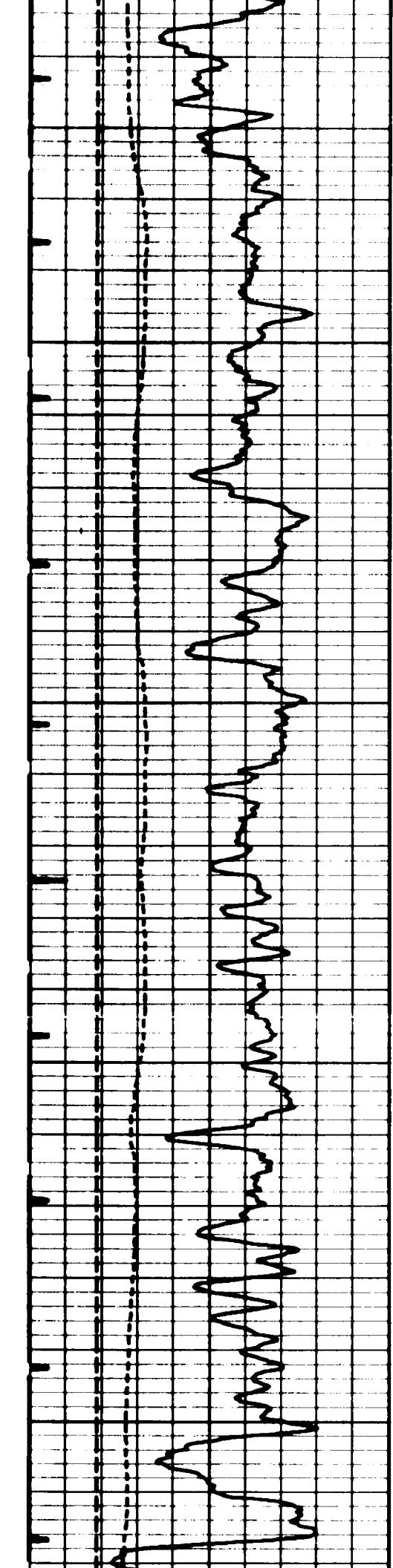
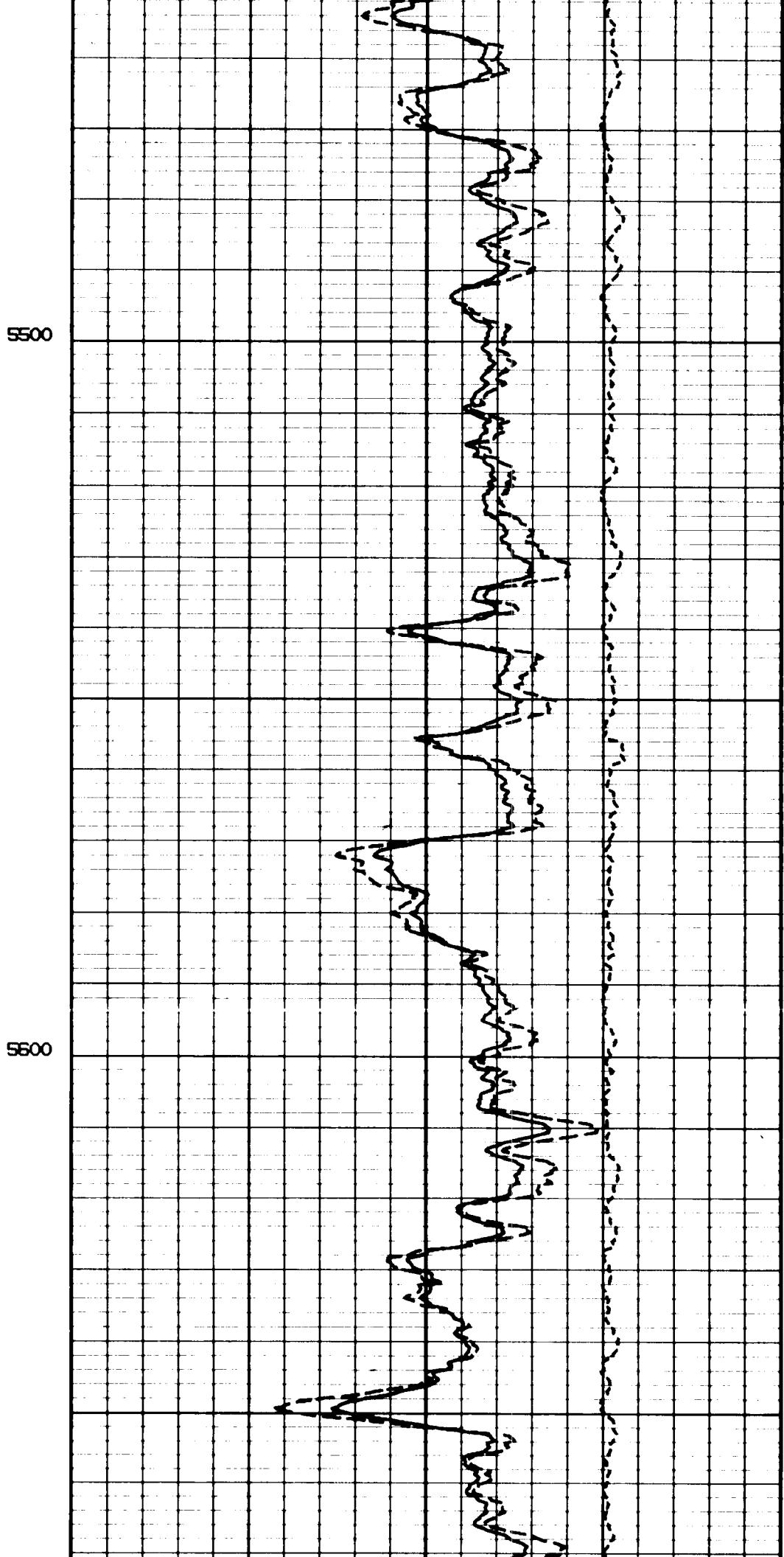


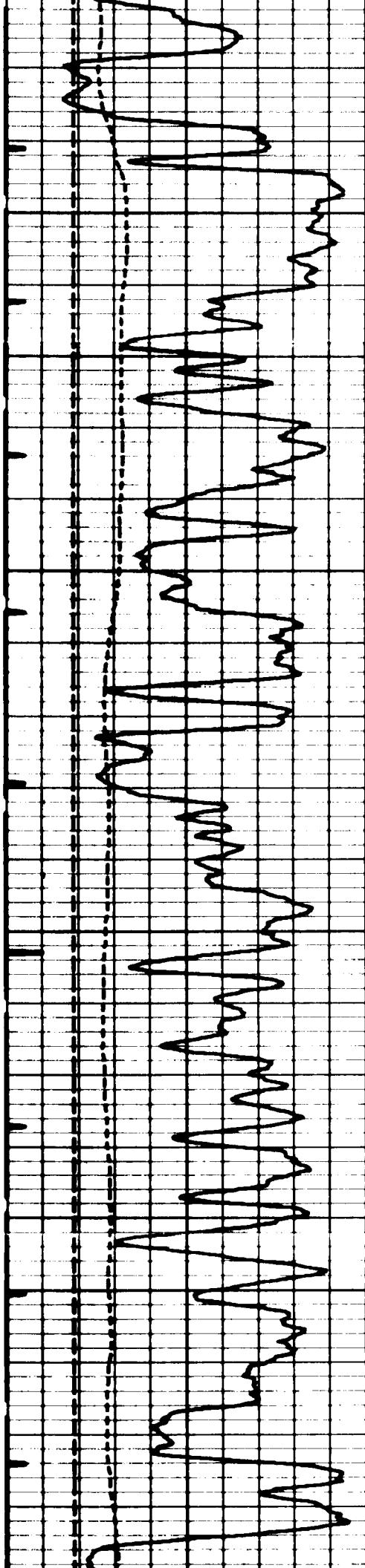


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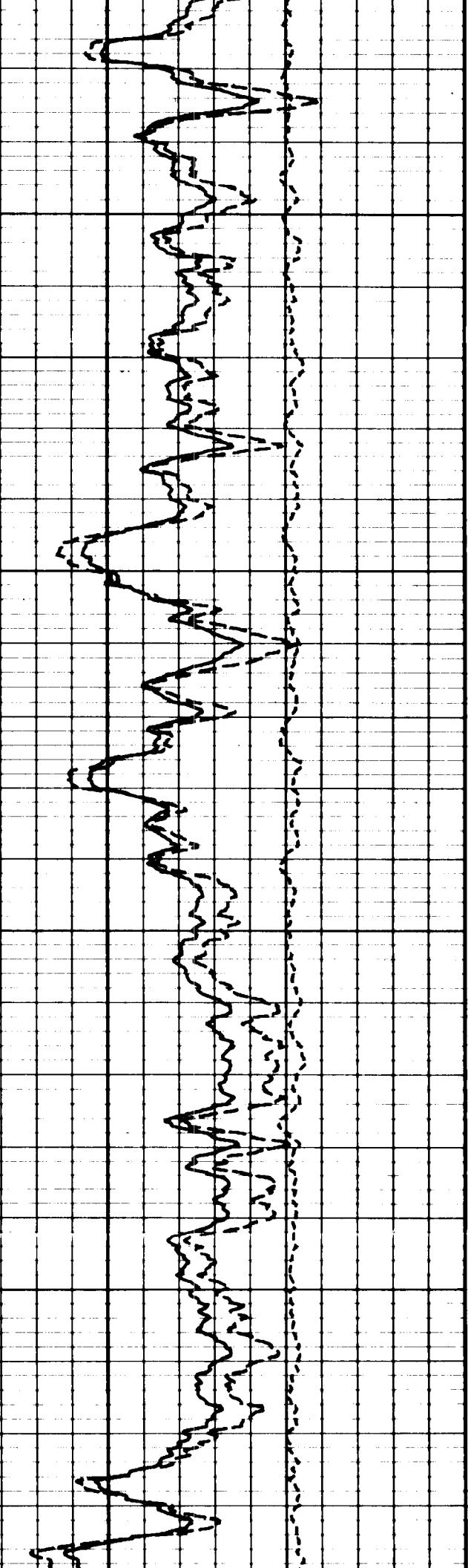






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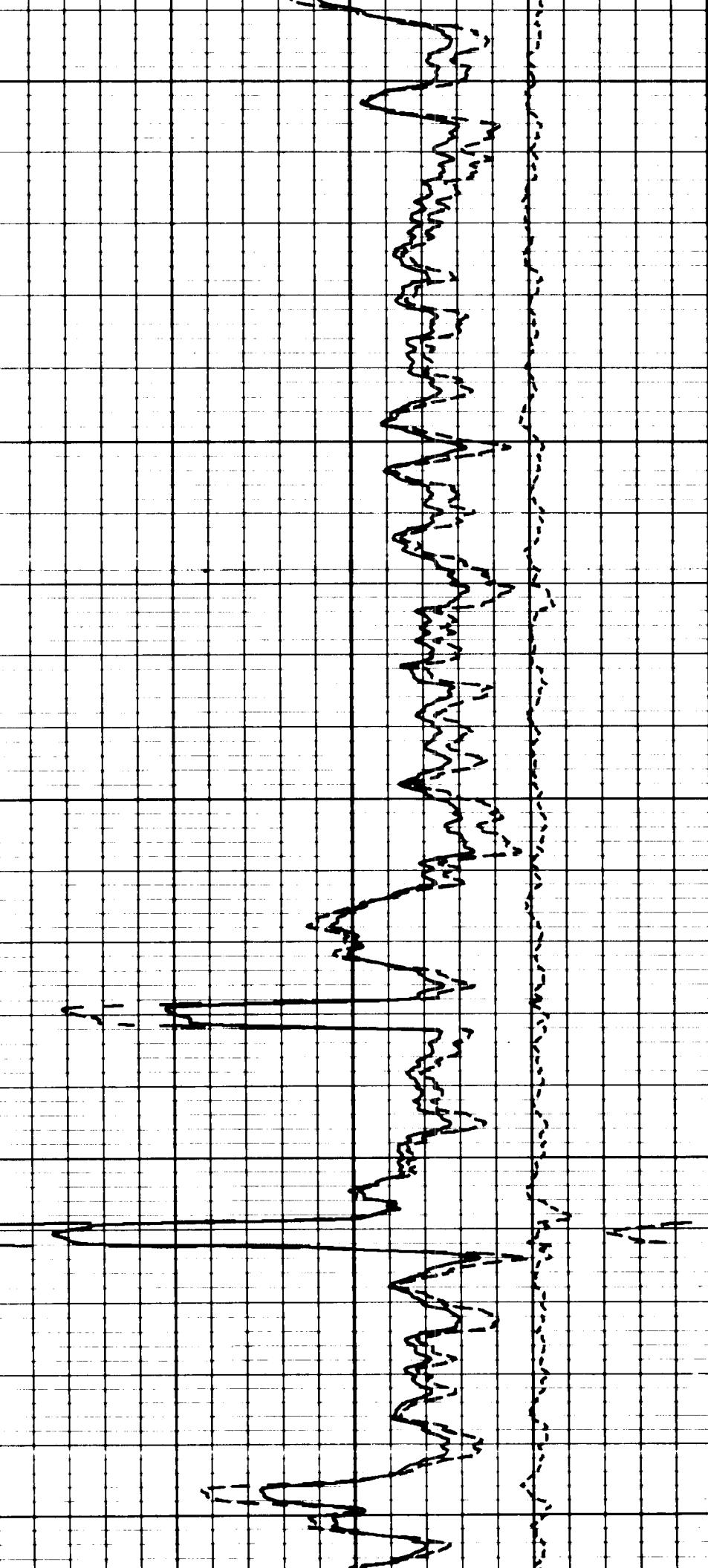
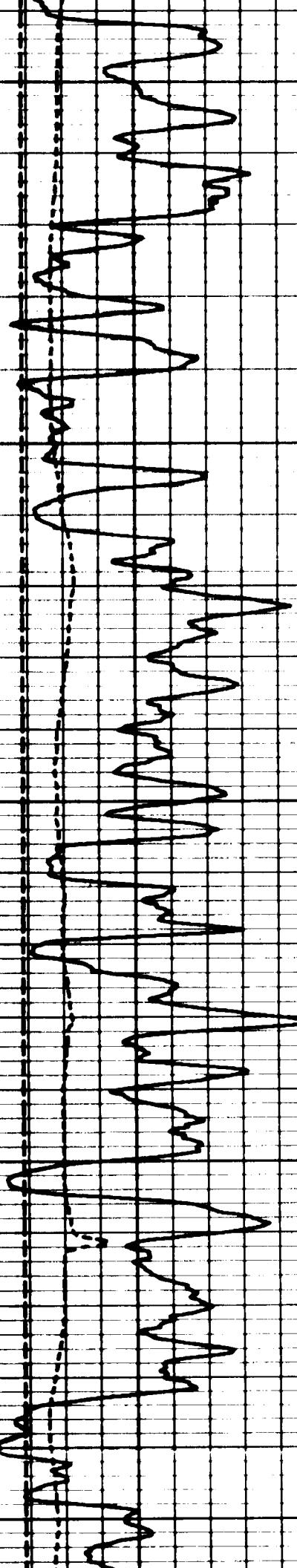
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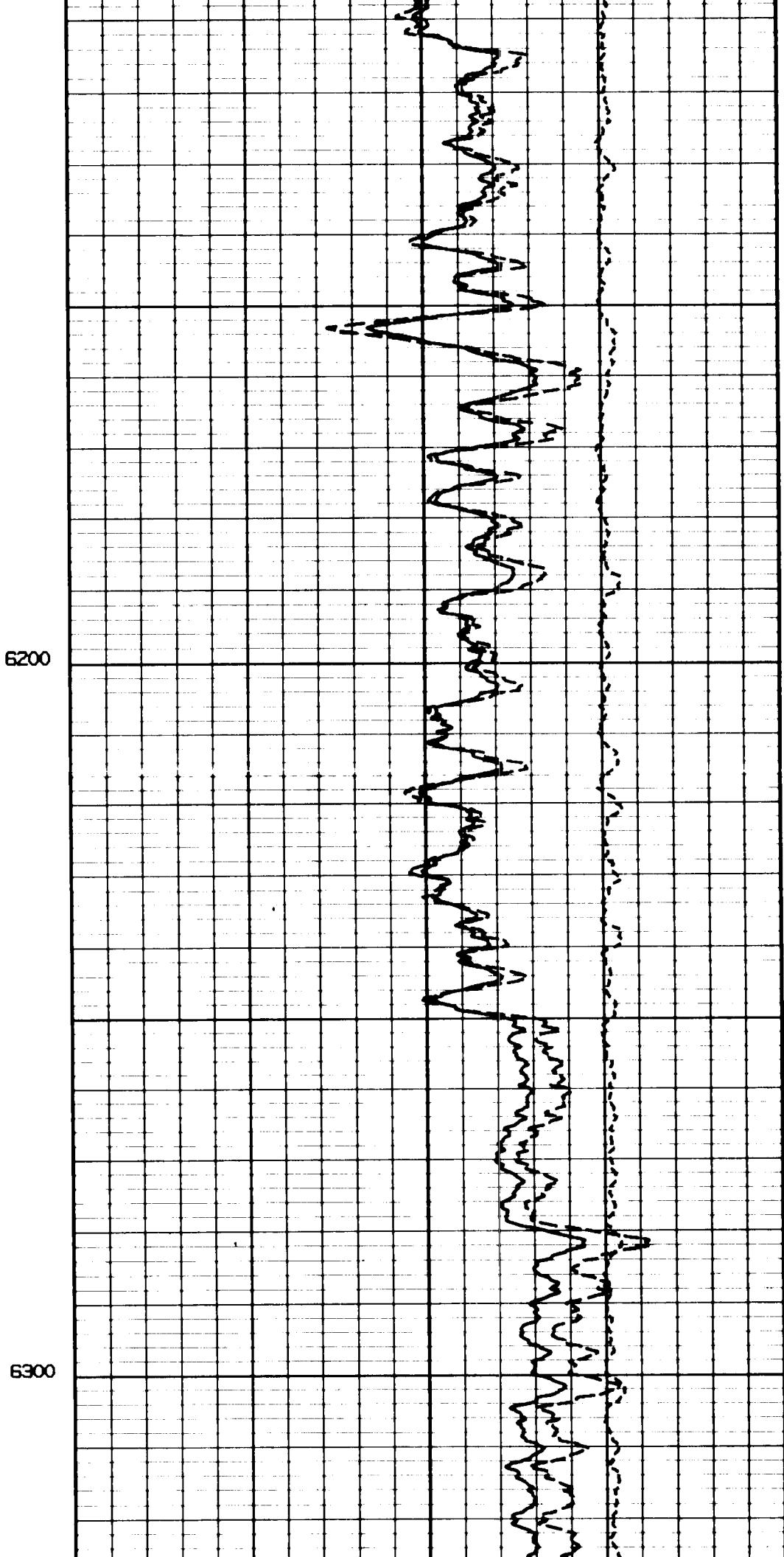
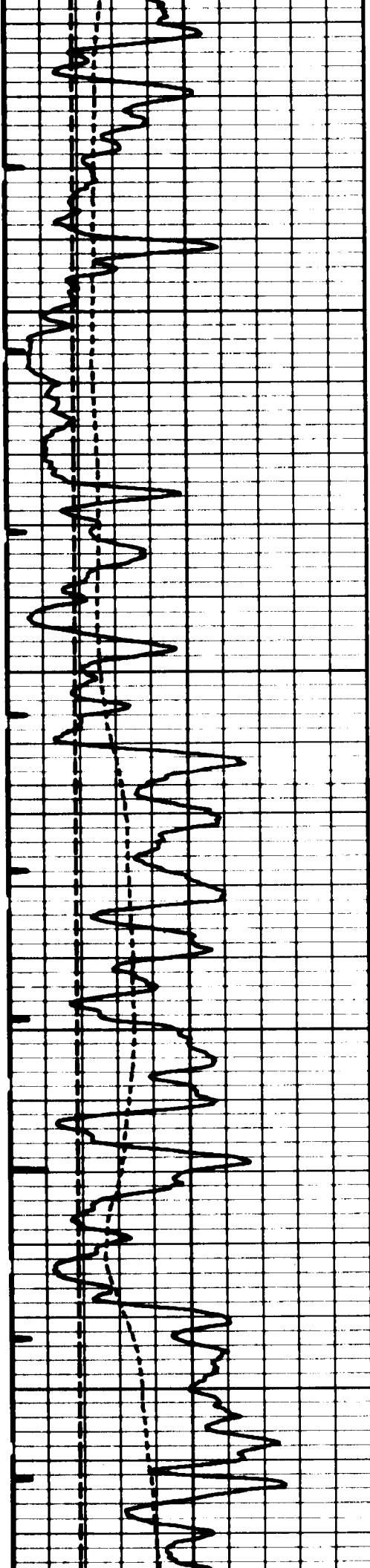


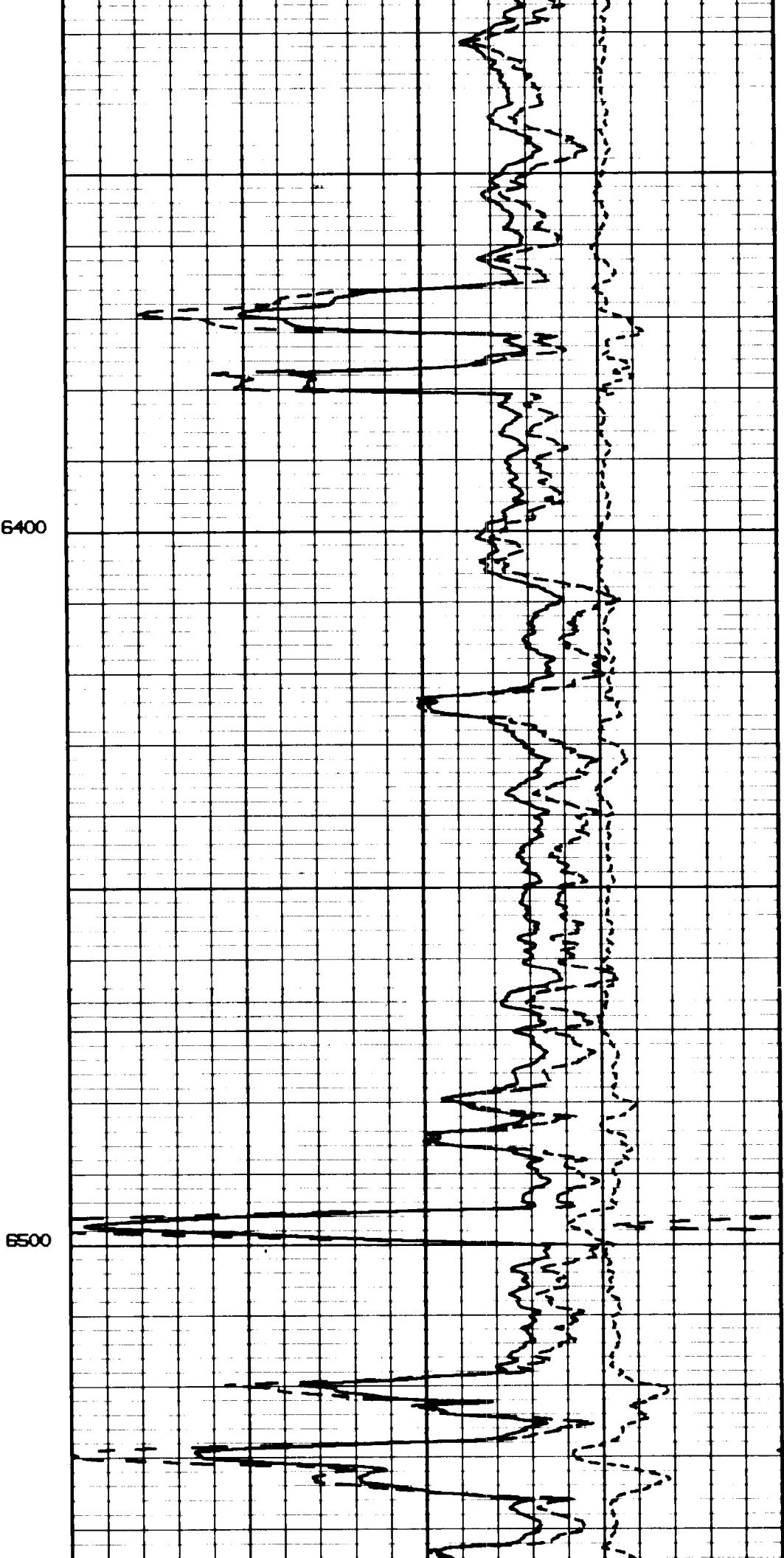
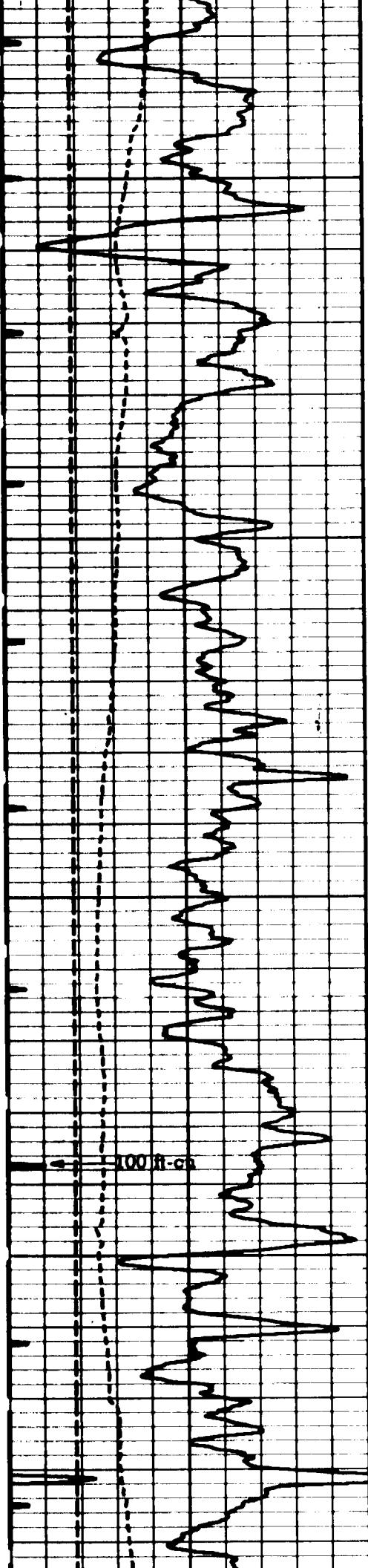
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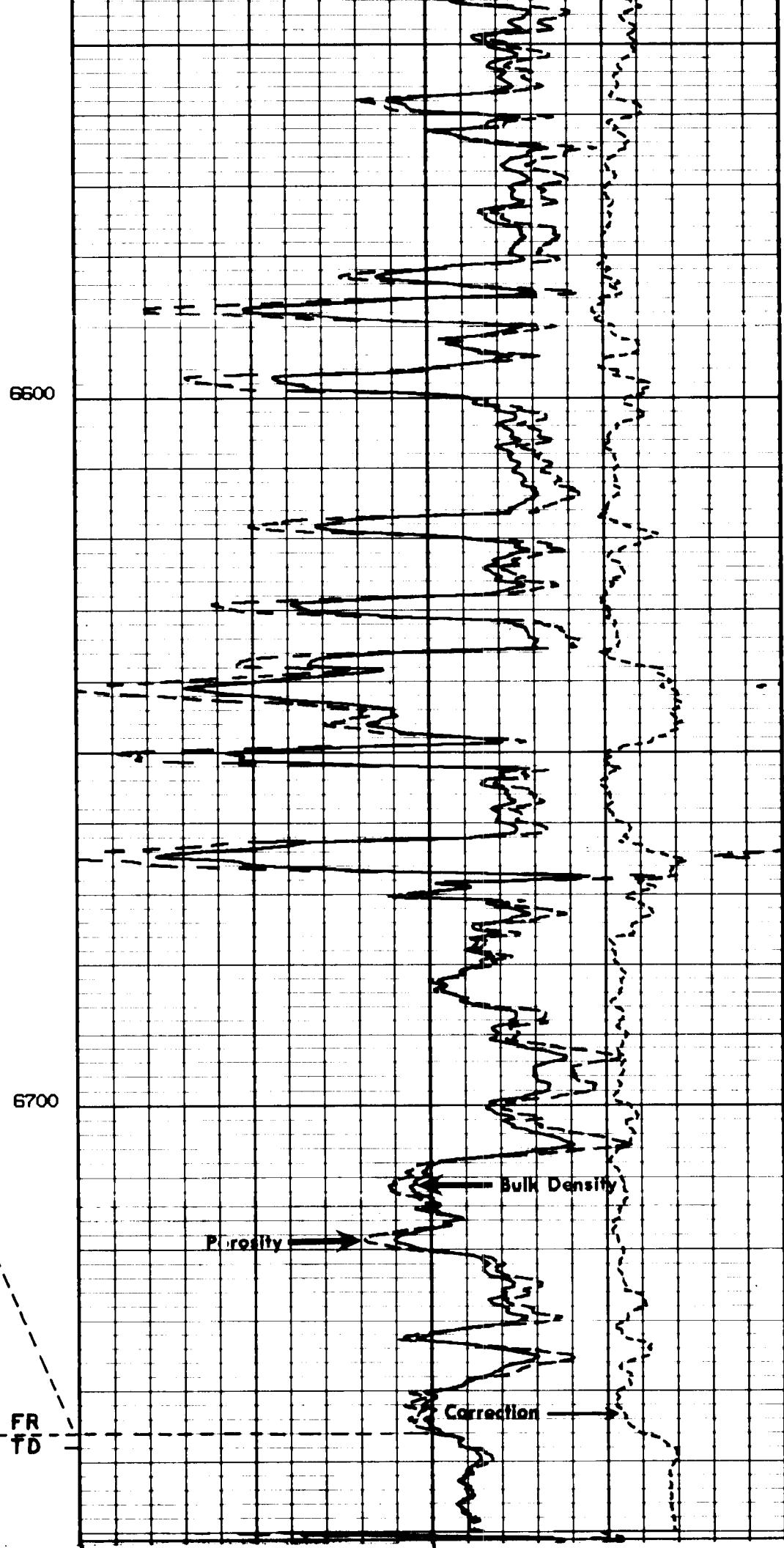
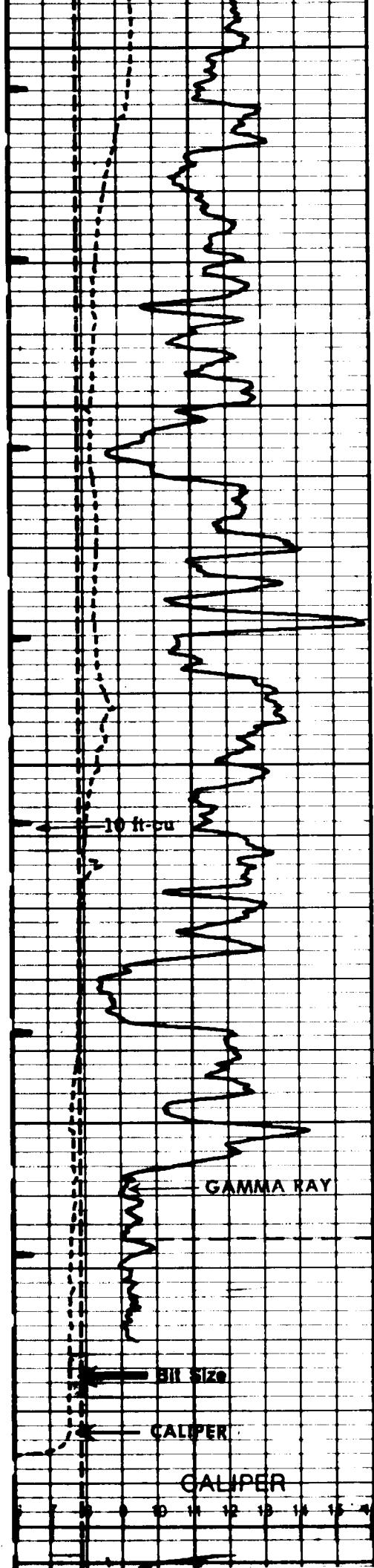
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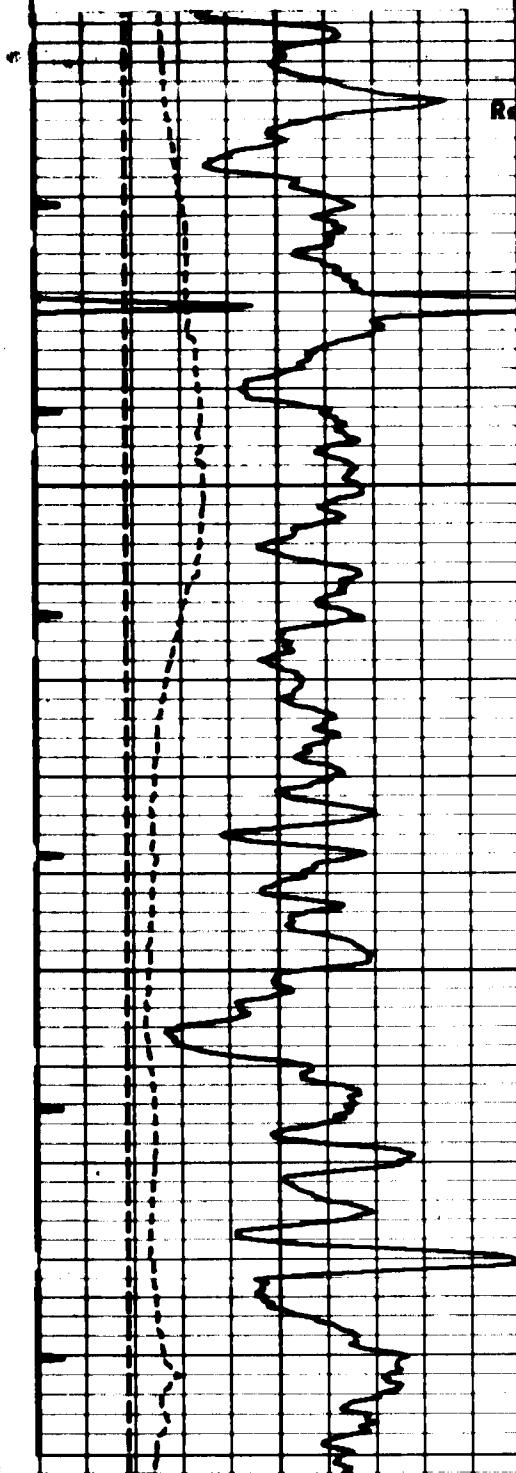


6 BII SIZE 16

0 HOLE VOLUME 0

0 GAMMA RAY 200 400

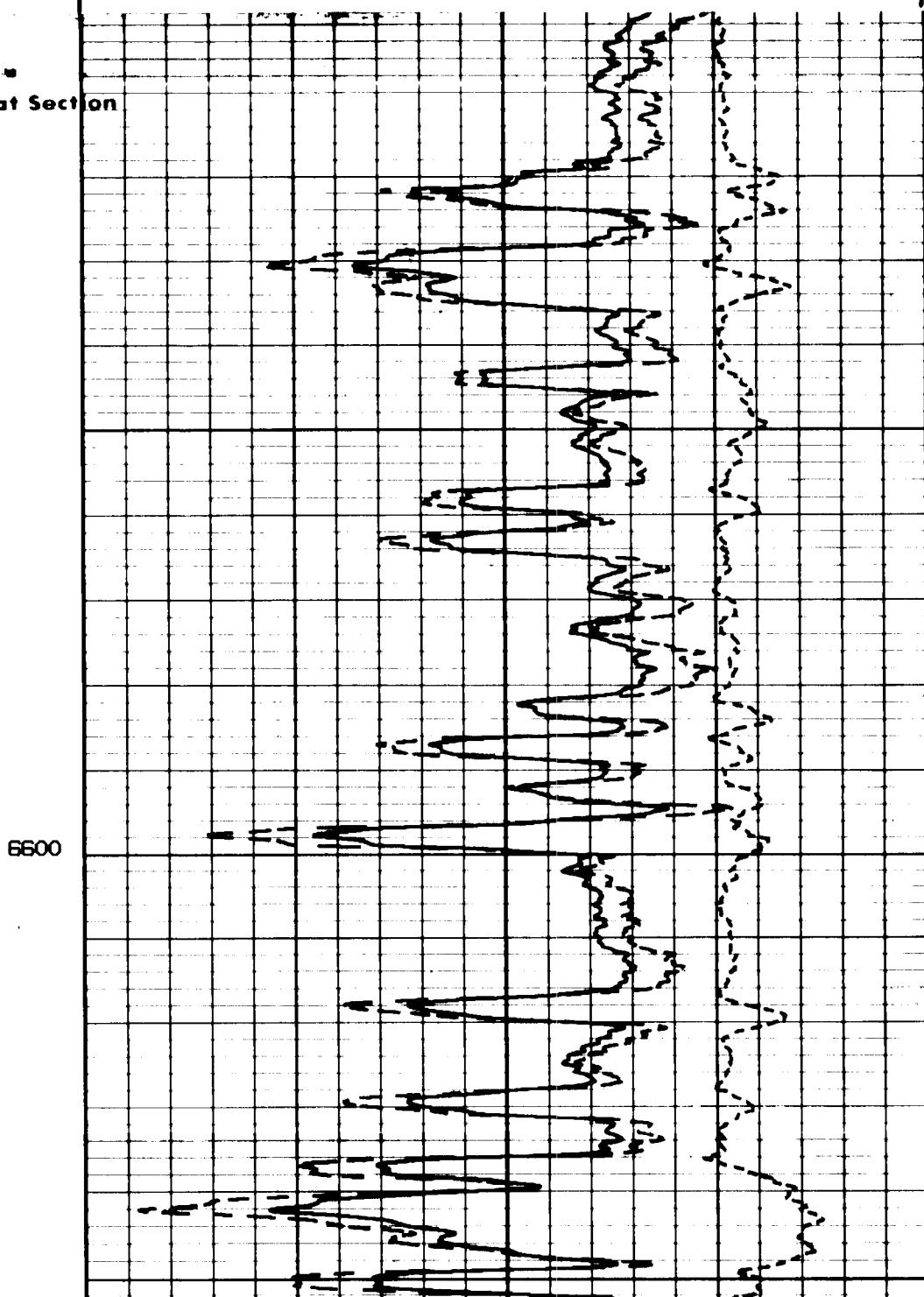
6 CALIPER 16



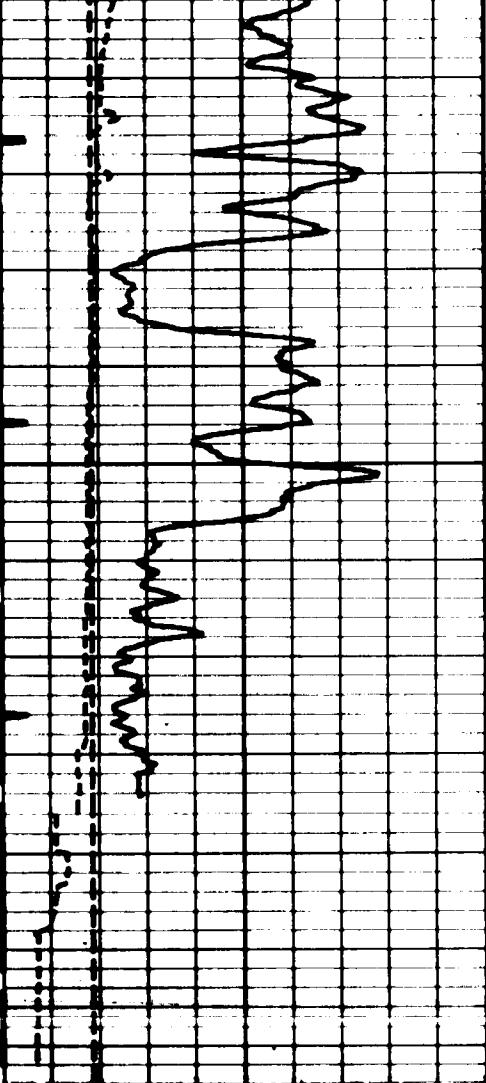
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-0.5 CORRECTION 0.5

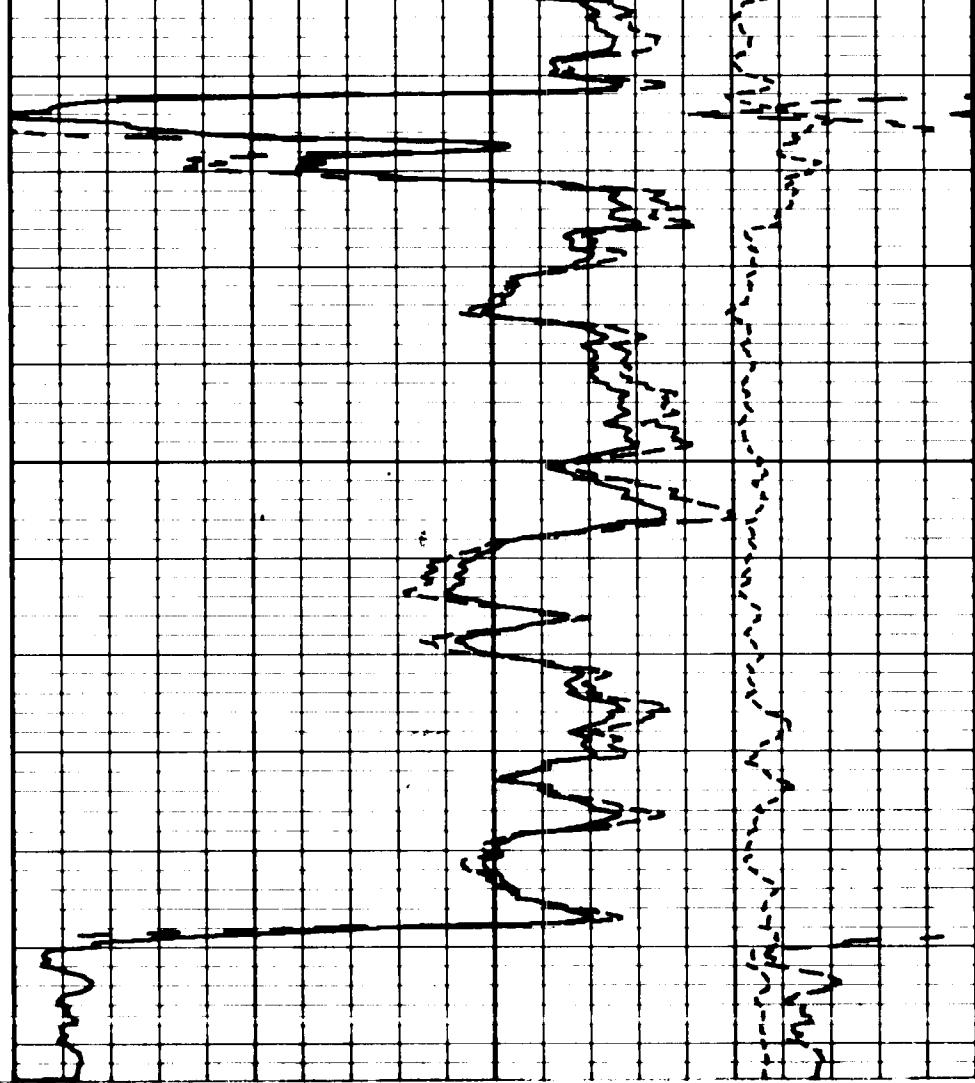
2 BULK DENSITY 3 1.5



6600



6700



WELEX DLSTM DSN DEN. CONT. VERS 3.72 01/14/83

LOG TAPE ID 00145001

DATE 09/18/83

SUMMARY

TRACE SURVEY	GALVO TRK	SCALE	DIGT	NORM OR	(NORM*)	(INTCP*)	PLOTS
		L	R	CHAN	INTCP	OFFSET T.C.	DELAY
DENSITY LS	6 4	1.5.	3.	2 -0.5724	0	6.963	6.
DENSITY SS	0 0	0.	0.	0 -2.531	0	23.26	0.
CORRECTION	7 3	-0.5.	0.5	3 0	0	0.	0.
D. POROSITY	5 4	30.	-10.	5 2.68	0	0.	0.
DSN, LS, CR	8 4	0.	4000	9 0.99386	1	0.	2.
DSN, SS, CR	9 4	0.	400000	10 7.76682	0	0.	2.
DSN, RATIO	10 4	200.	0.	6 0.	0	0.	0.
DSN, POR	4 4	30.	-10.	7 SAND	0	0.	0.
XPLT POR	12 4	30.	-10.	16 0.	0	0.	0.
CALIPER	1 1	6.	16	1 0.00114	-3229	0.	0.
B. H. VOL.	11 1	0.	0.	8 0.	0	0.	0.
GAMMA	2 1	0.	200.	4 0.32427	0	0.	0.
L. TENSION	15 3	4095.	0.	12 1.	0	135.	0.
BIT SIZE	16 1	6.	16	13 7.87	0	0.	0.
NORMAL	0 4	0.	40	14 0.	0	0.	0.
LATERAL	0 4	0.	40	15 0.	0	0.	0.
COL	0 1	0.	2.5	11 0.0002	-2000	0.	0.
F CURVE	14 2	1.	10000	0 0.62	0	2.15	0.

LOG TAPE ID 00145001

DATE 09/15/83

SUMMARY

TRACE SURVEY	GALVO	TRK	SCALE L	R	DIGT CHAN	NORM OR MATRIX	INTCP	(NORM*) (INTCP*) OFFSET	T.C.	DELAY	PLOTS C1VC2
DENSITY LS	6	4	1.5	3	2	-0.5724	0	6.963	6	0	YNN
DENSITY SS	0	0	0	0	0	-2.531	0	23.26	0	0	NNN
CORRECTION	7	3	-0.5	0.5	3	0	0	0	0	0	FFF
D. POROSITY	5	4	30	-10	5	2.68	0	0	0	0	MMY
DSN. LS, CR	8	4	0	4000	9	0.99386	1	0	0	17.5	NNN
DSN. SS, CR	9	4	0	40000	10	7.76682	0	0	0	16	NNN
DSN. RATIO	10	4	200	0	6	0	0	0	0	0	NNN
DSN. POR	4	4	30	-10	7	SAND	0	0	0	0	NFM
XPLT POR	12	4	30	-10	16	0	0	0	0	0	NNN
CALIPER	1	1	6	16	1	0.00114	-3229	0	0	2	FFF
B. H. VOL.	11	1	0	0	8	0	0	0	0	0	YYY
GAMMA	2	1	0	200	4	0.32427	0	0	0	30	YYY
L. TENSION	15	3	4095	0	12	1	0	135	0	0	NYY
BIT SIZE	16	1	6	16	13	7.87	0	0	0	0	MMM
NORMAL	0	4	0	40	14	0	0	0	0	2	NNN
LATERAL	0	4	0	40	15	0	0	0	0	2	NNN
CCL	0	1	0	2.5	11	0.0002	-2000	0	0	31.5	NNN
F CURVE	14	2	1	100000	0	0.62	0	2.15	0	0	NNN

COMPENSATED DENSITY DUAL SPACE NEUTRON CALIBRATION SUMMARY
09/15/83 TAPE ID: 00145001

CALIPER SUB SERIAL NUMBER -1
 SMALL RING 8 TOOL VALUE 3773 LARGE RING 14 TOOL VALUE 9025

GAMMA SUB SERIAL NUMBER 1
 GAMMA BACKGROUND TOOL VALUE 136 SOURCE + BACKGROUND TOOL VALUE 614
 GAMMA SOURCE VALUE 155 API UNITS

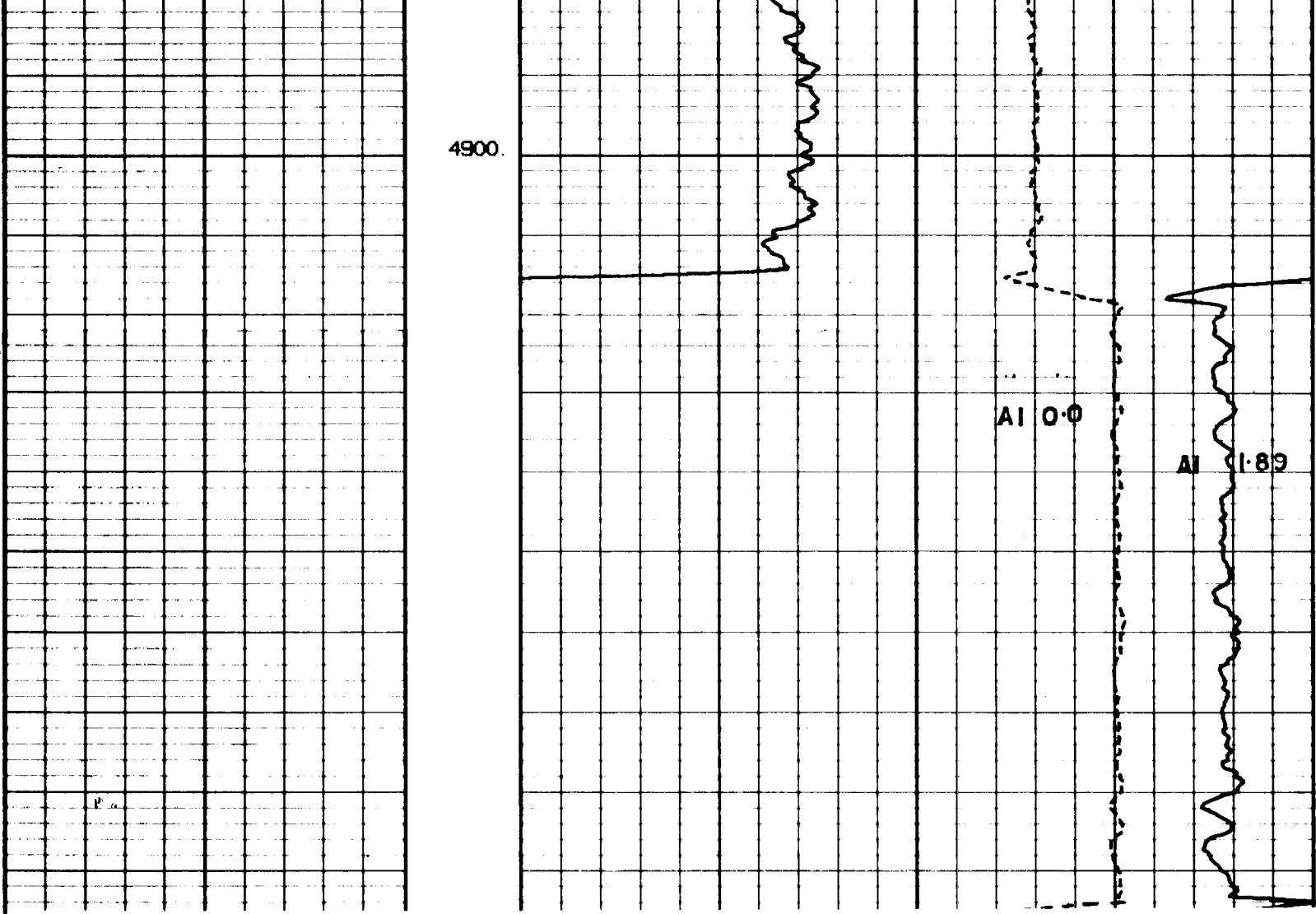
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 BACKGROUND BG + SOURCE
 DTC VALUE COUNTS DTC VALUE COUNTS
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 SS 0 -0.993 1784 1732

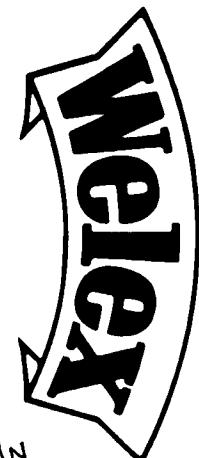
DENSITY PROB NUMBER 1
 AL SLIDE DENSITY 1.89 GM/CC LS COUNT 1614 TOOL VALUE 7063
 AL SLIDE CORRECTION 0 GM/CC SS COUNT 1415 TOOL VALUE 4654
 BRASS SLIDE DENSITY 2.361 GM/CC LS COUNT 495 TOOL VALUE 2127
 BRASS SLIDE CORRECTION -0.216 GM/CC SS COUNT 909 TOOL VALUE 2962

AFTER LOG CHECK

BRASS 2.361 gm/cc

BRASS - 216





DUAL GUARD
FORXO LOG

COORS ENERGY COMPANY			
COMPANY	COORS ENERGY	WELL	WELL #2-9 (1-1)
FIELD	WILDCAT	FIELD	WILDCAT
COMPANY	DUCHESTER	COUNTY	DUCHESTER
WELL	WILDCAT	STATE	UTAH
FIELD	DUCHESTER	STATE	UTAH
Location	1054' DEEP	Other Services:	
Sec.	9	Twp	55
Date	9-18-83	Elev.	6008'
Run No.	ONE	Elev.	K.B. 6019'
Depth—Driller	6760'	DF	
Depth—Welex	6762'	G.L.	6008'
Btm. Log Inter.	6761'		
Top Log Inter.	450'		
Casing—Driller	8 5/8" @ 420'	@ DIVISION OF	@
Casing—Welex	406'		
Bit Size	7 7/8"	OH, GAS & MINING	
Type Fluid in Hole	L. 1% KCL		
Dens. / Visc.	8.6	27	
pH / Fluid Loss	10.5	1 ml	
Source of Sample	MUD TANK		
R _m @ Meas. Temp.	.20	@ 70 °F	@ °F
R _{ml} @ Meas. Temp.	---	@ -- °F	@ °F
R _{mc} @ Meas. Temp.	---	@ -- °F	@ °F
Source R _m R _{mc}	---	1 --	1 --
R _m @ BHT	.091	@ 164°F	@ °F
Time Since Circ.	5 HOURS		
Max. Rec. Temp.	164 °F @ 6761'	°F @	°F @
Equip. I Location	2883 WILDCAT	-	-
Recorded By	P. REEDS		
Witnessed By	G.E. JONES		

Fold Here

Service Ticket No. 157552 Remarks: VERSION 3.03

Change in Mud Type or Additional Samples

Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth—Driller					
Type Fluid in Hole					
Dens. / Visc.	—	—	—	—	—

ph / Fluid Loss	1 ml	—	—	—	—
Source of Sample					

R _m @ Meas. Temp.	@	°F	@	°F	Run No.	Tool Type and No.	Pad Type	Tool Position	Other
R _{ml} @ Meas. Temp.	@	°F	@	°F	ONE	34		CENT	
R _{mc} @ Meas. Temp.	@	°F	@	°F					

Source: R _m R _{mc}									
R _m @ BHT									
R _{ml} BHT									
R _{mc} BHT									

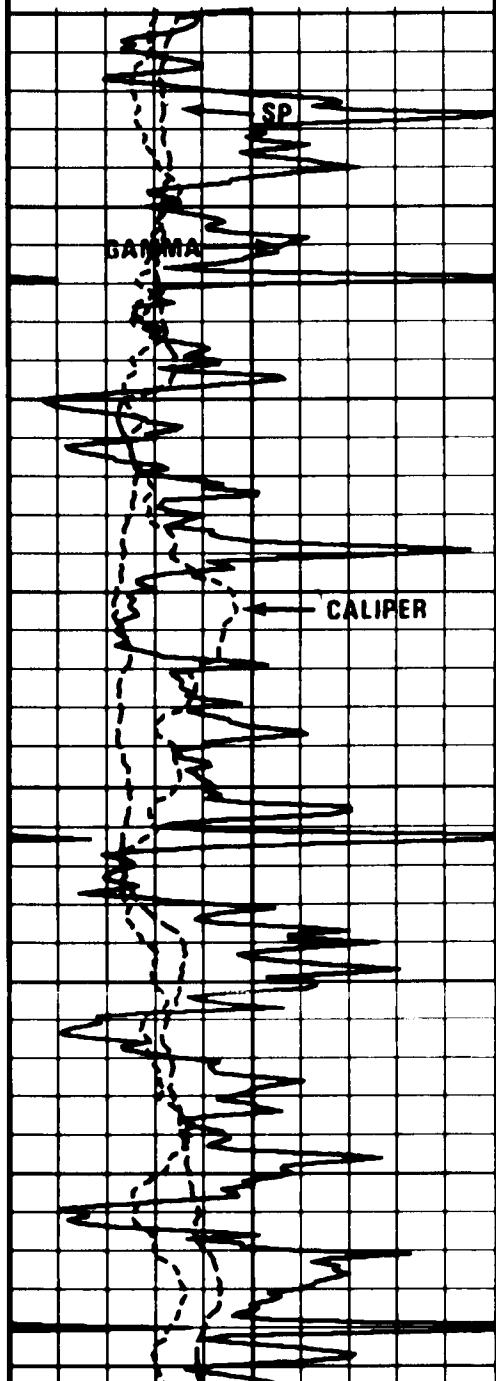
EQUIPMENT DATA

FILE 0

6 CALIPER 16

8 GAMMA RAY 200 400

SP 10 +



400 CONDUCTIVITY 800 400

0 LONG GUARD 100 1000

0 FORXO 100 1000

500 LONG GUARD

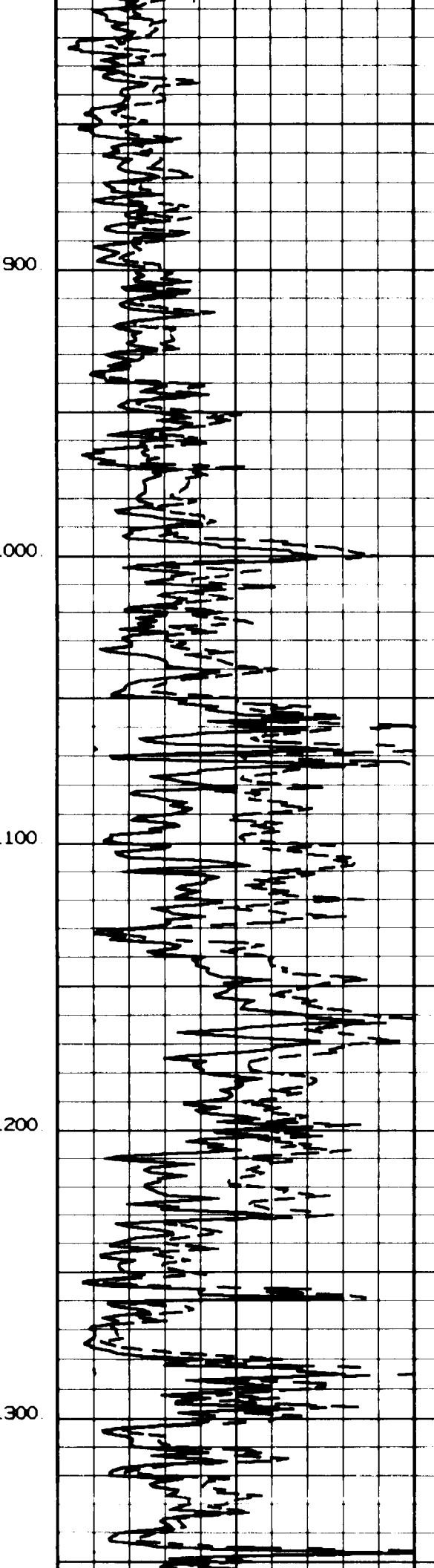
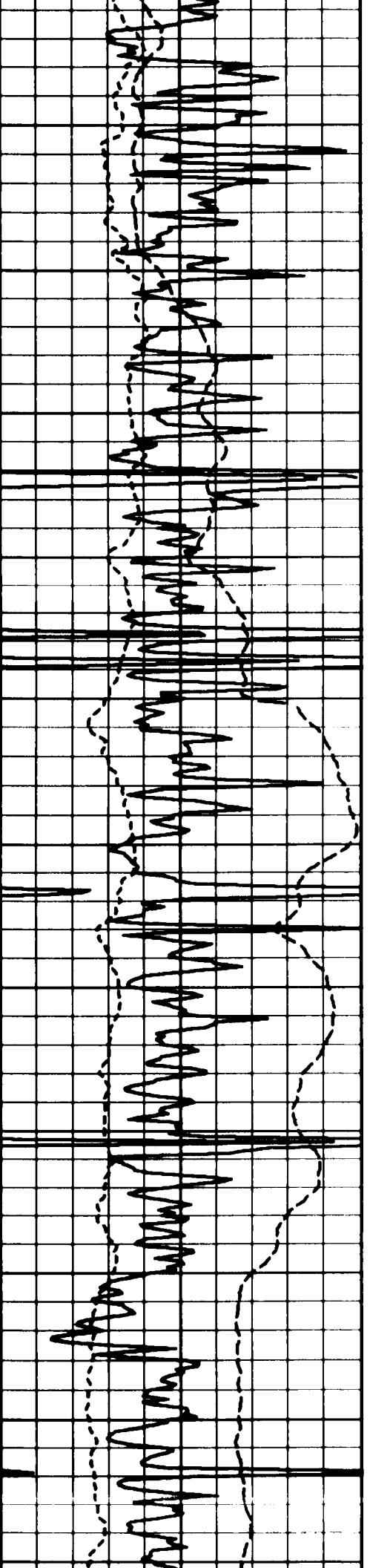
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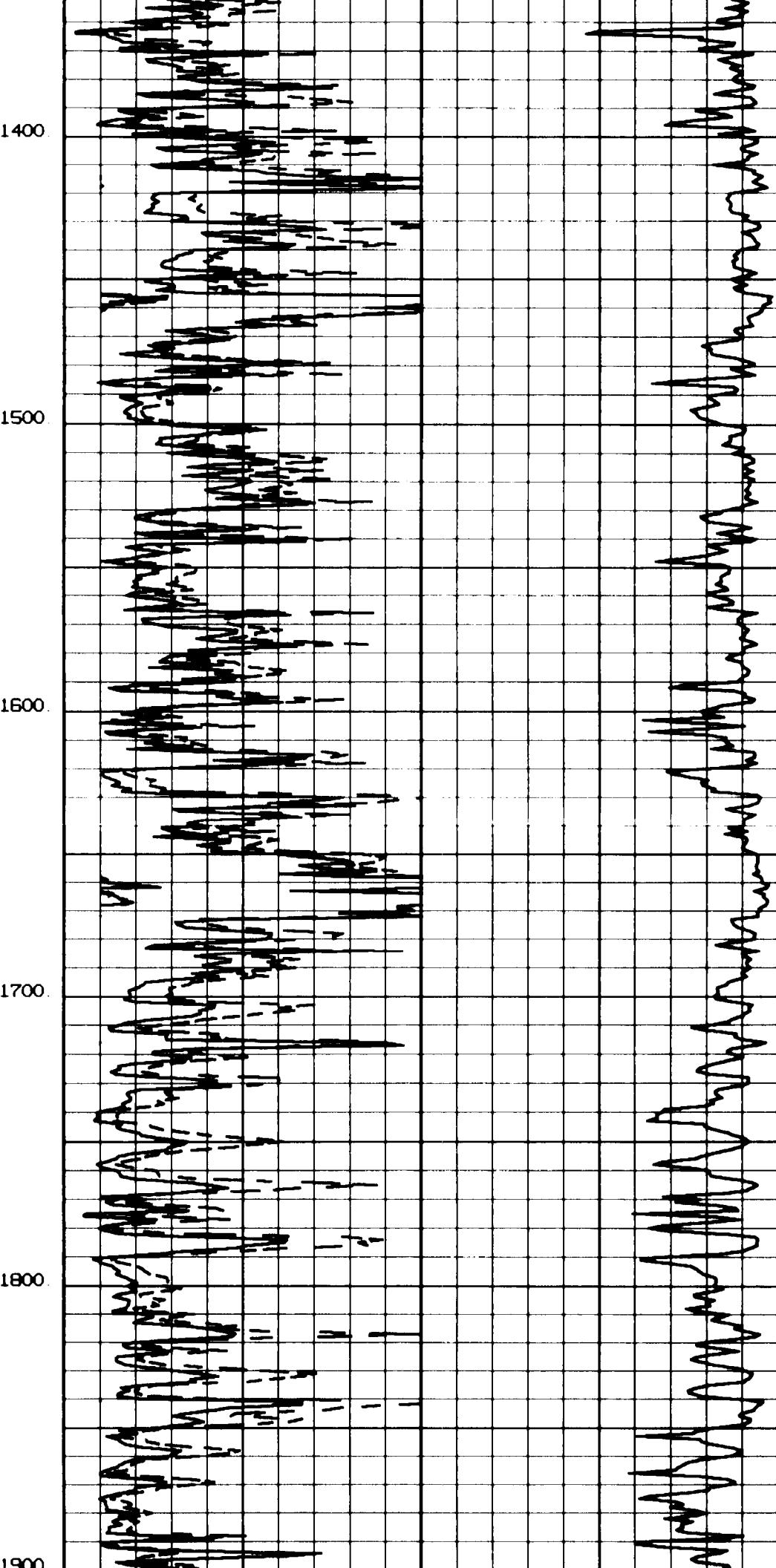
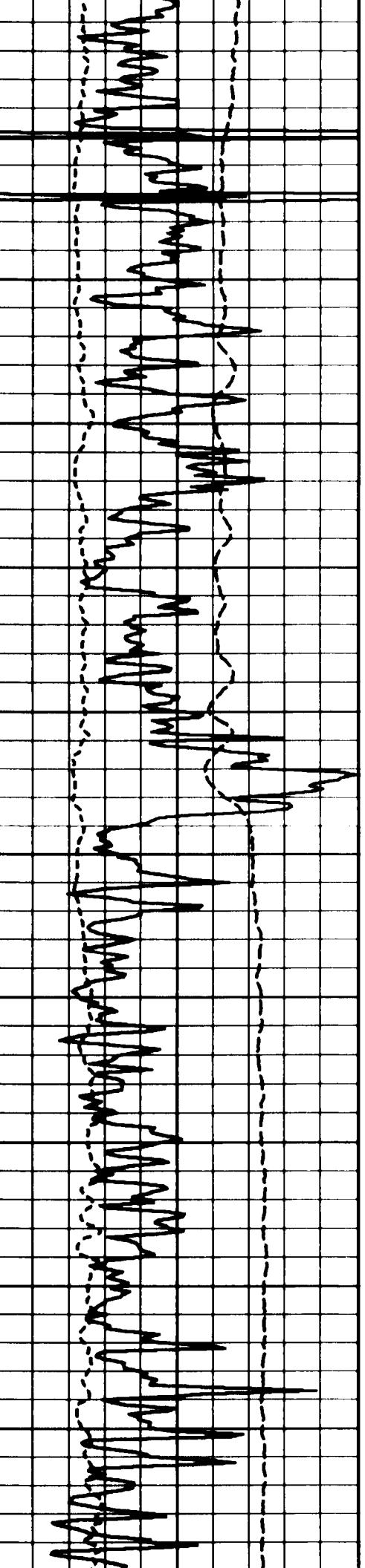
Conductivity

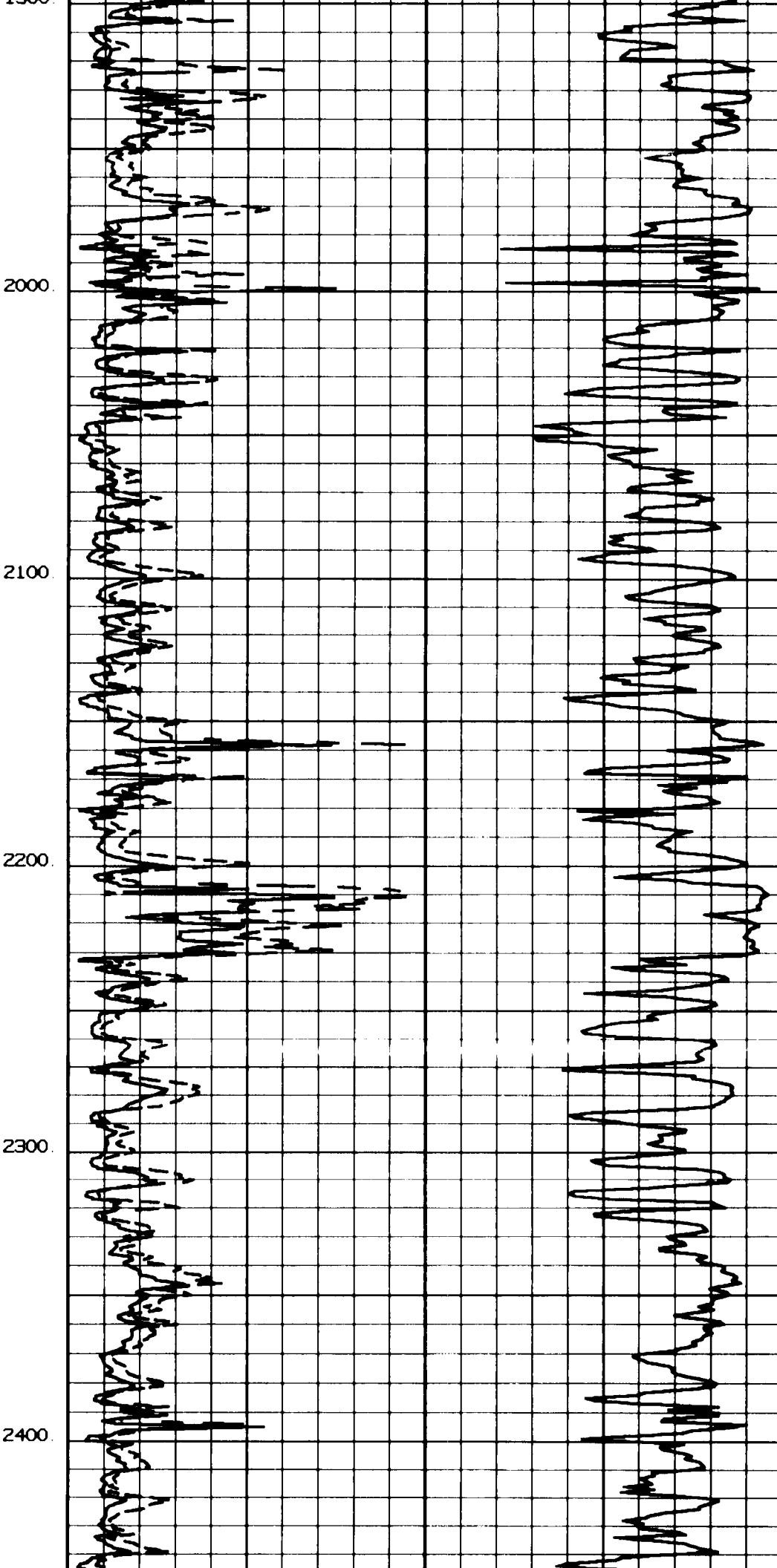
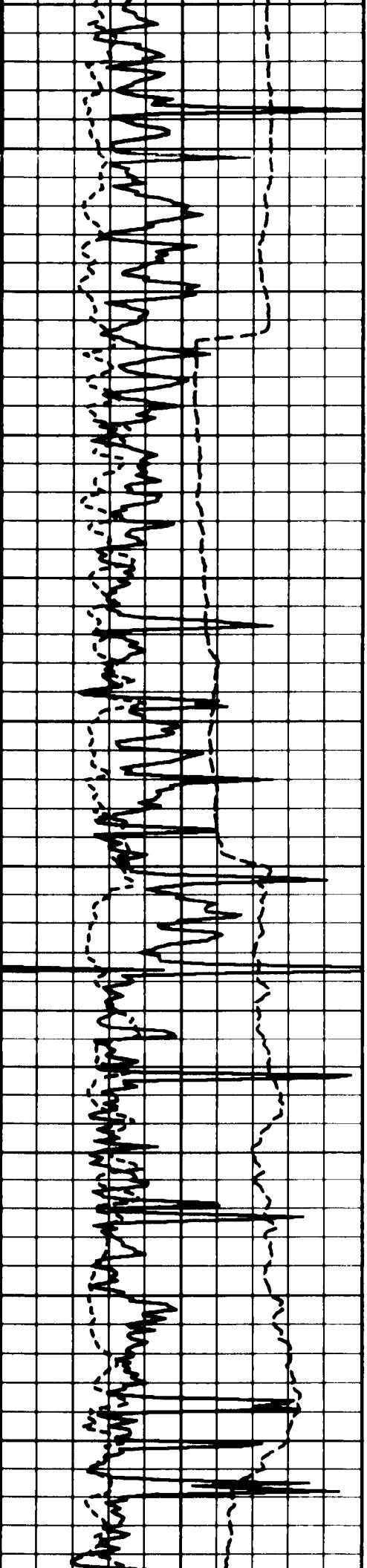
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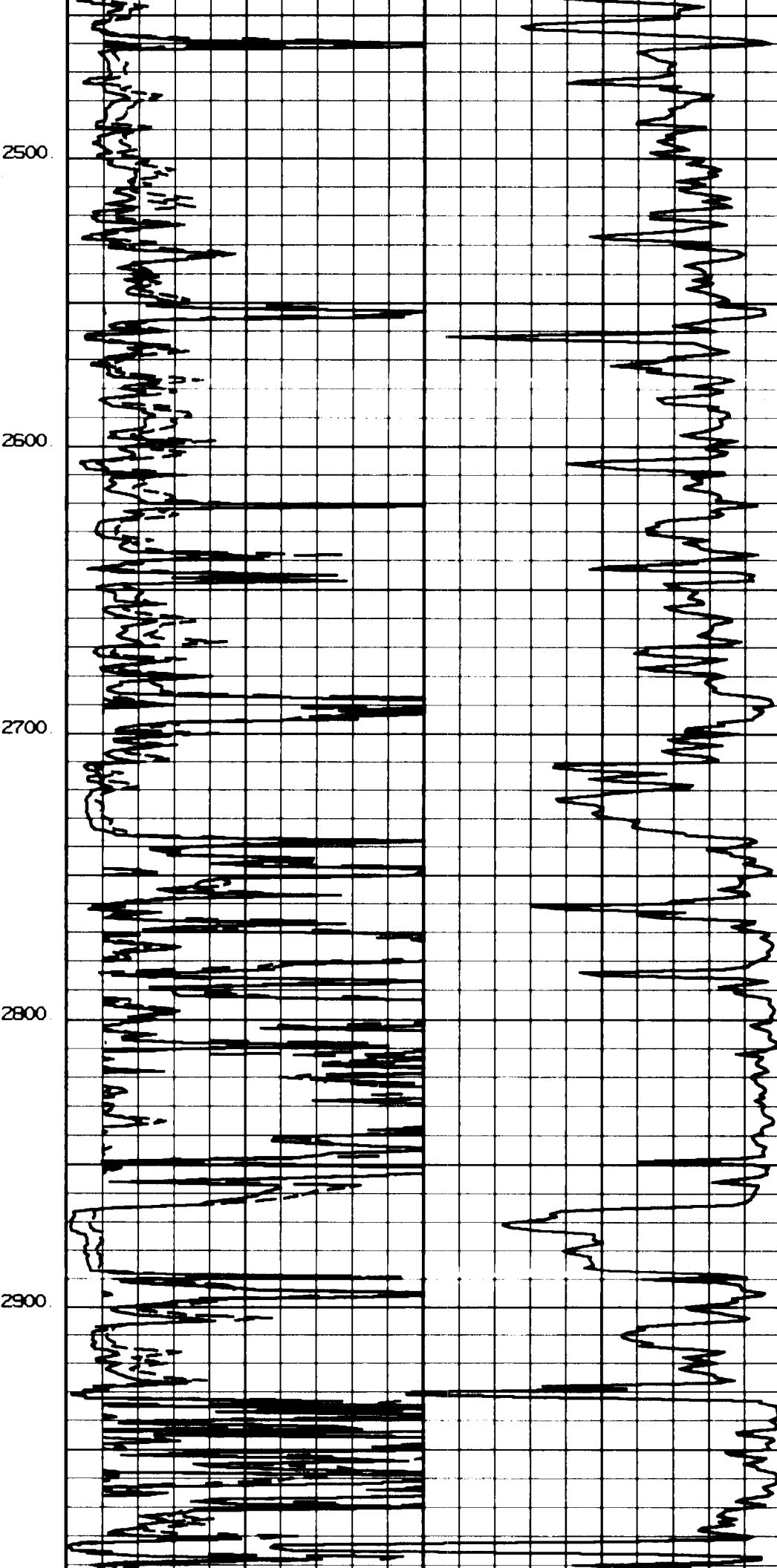
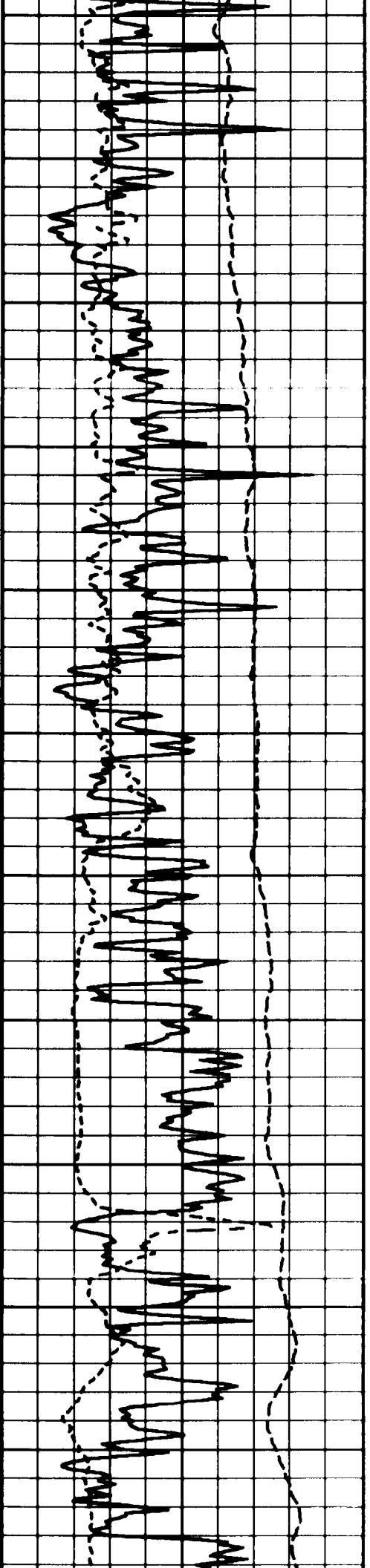
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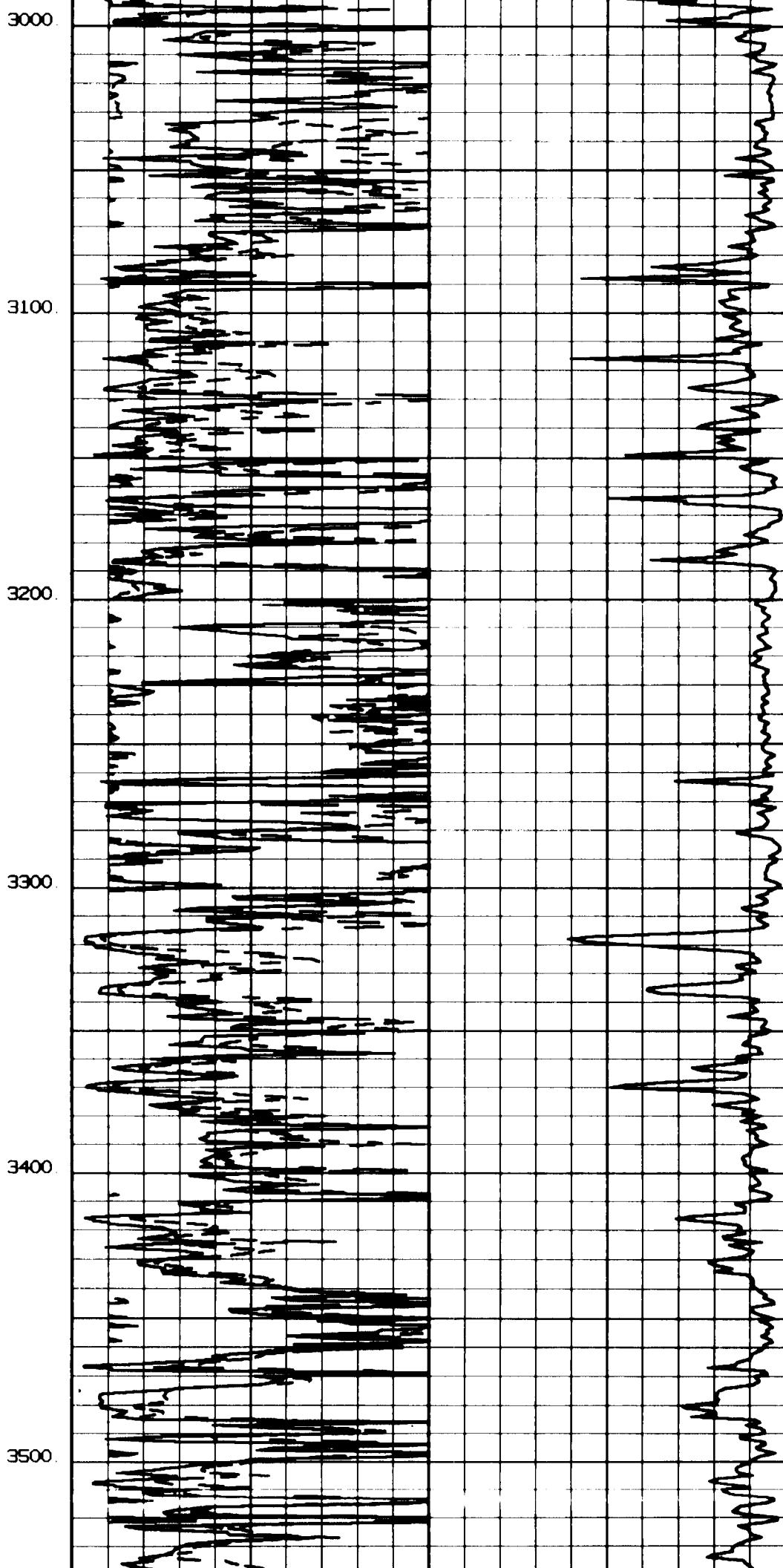
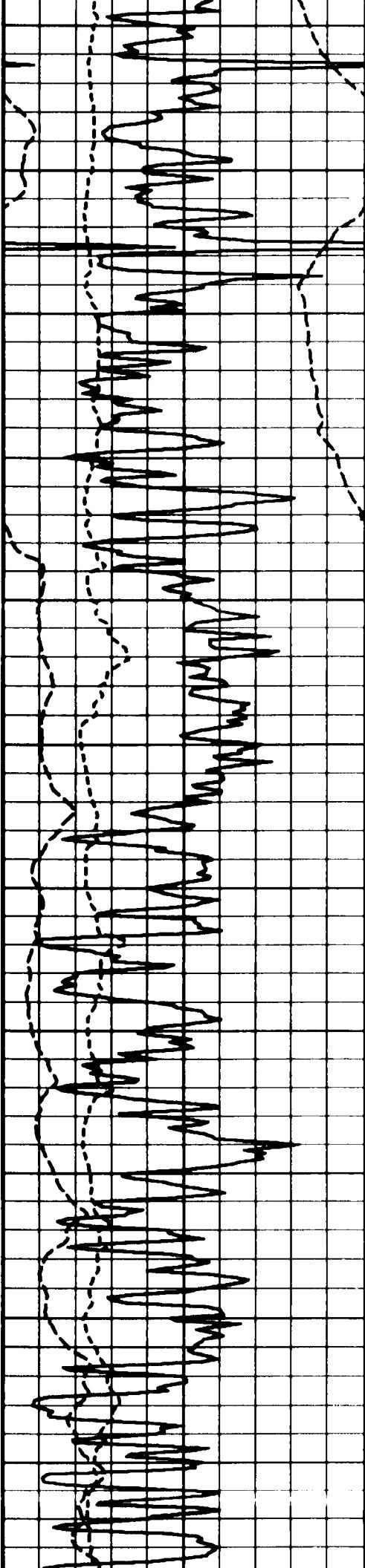
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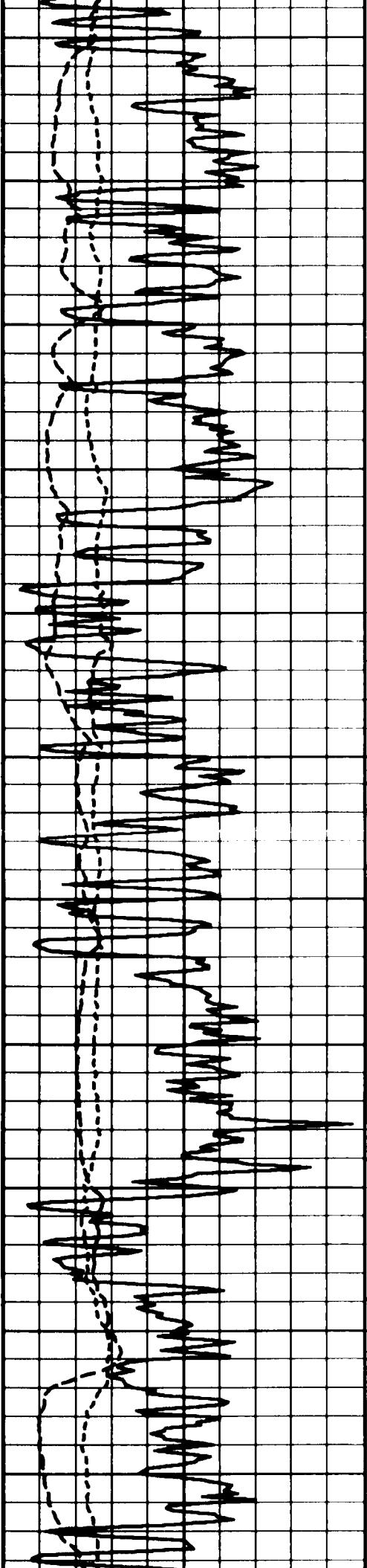












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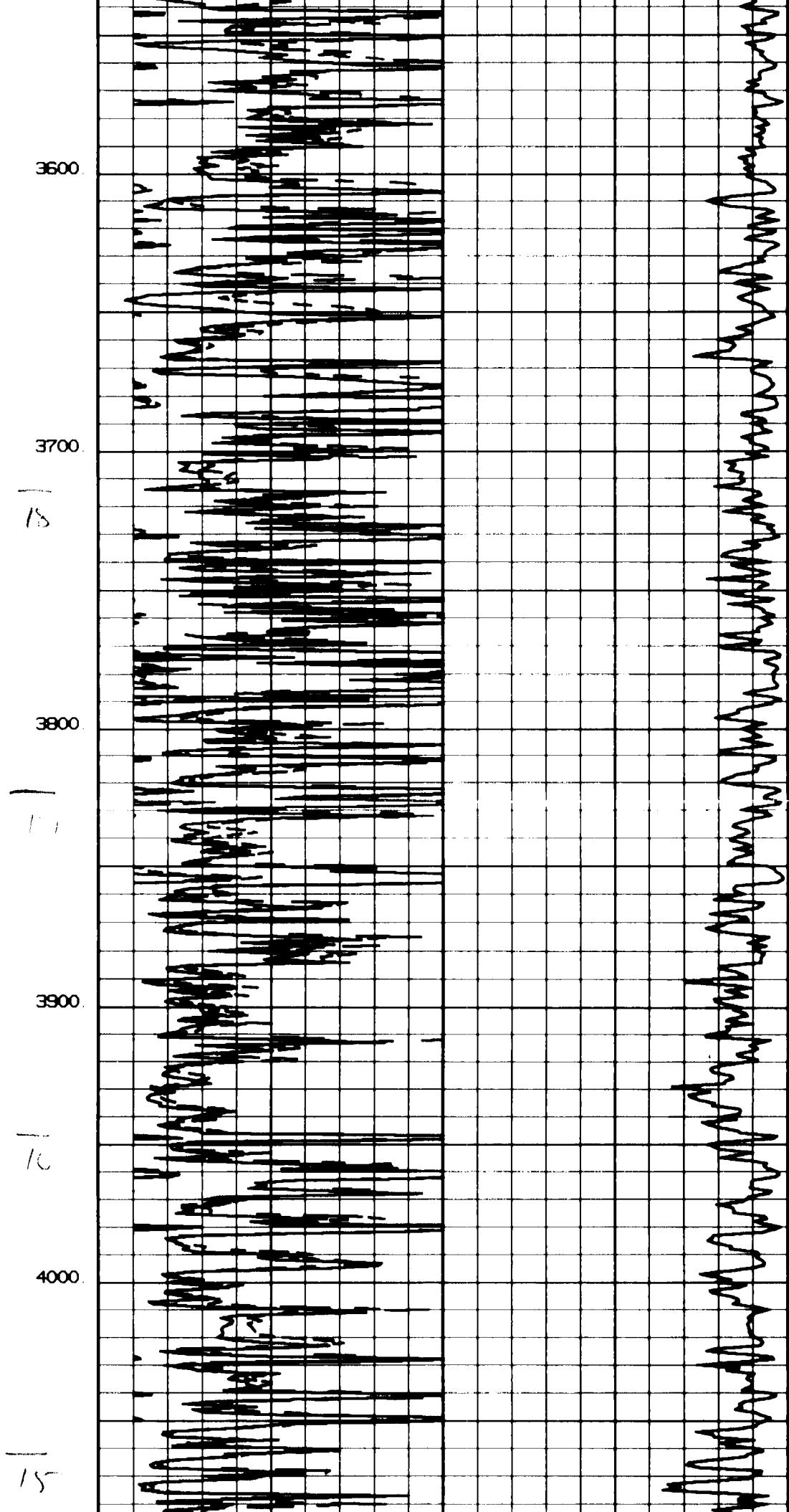
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3800

3900

4000

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3600

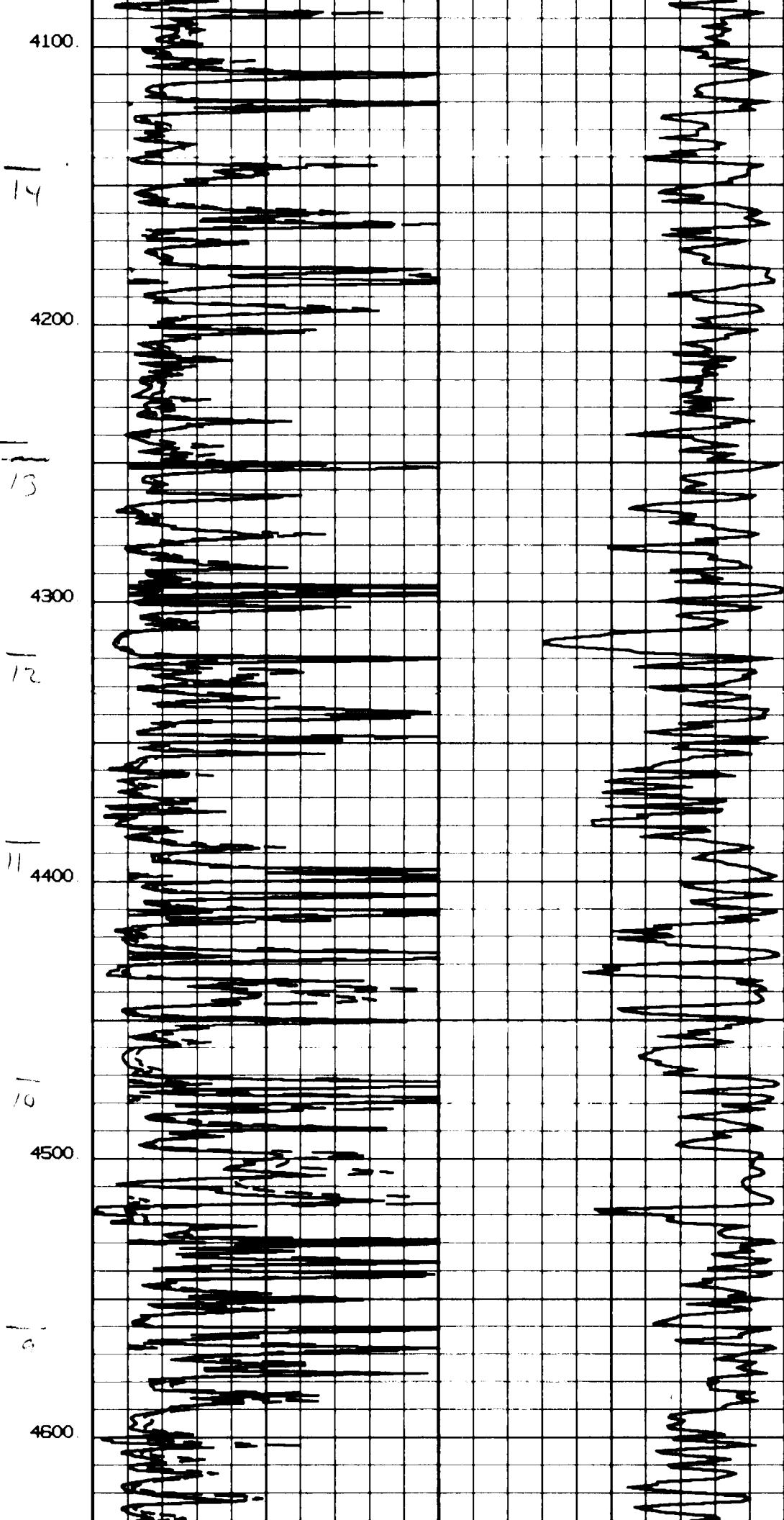
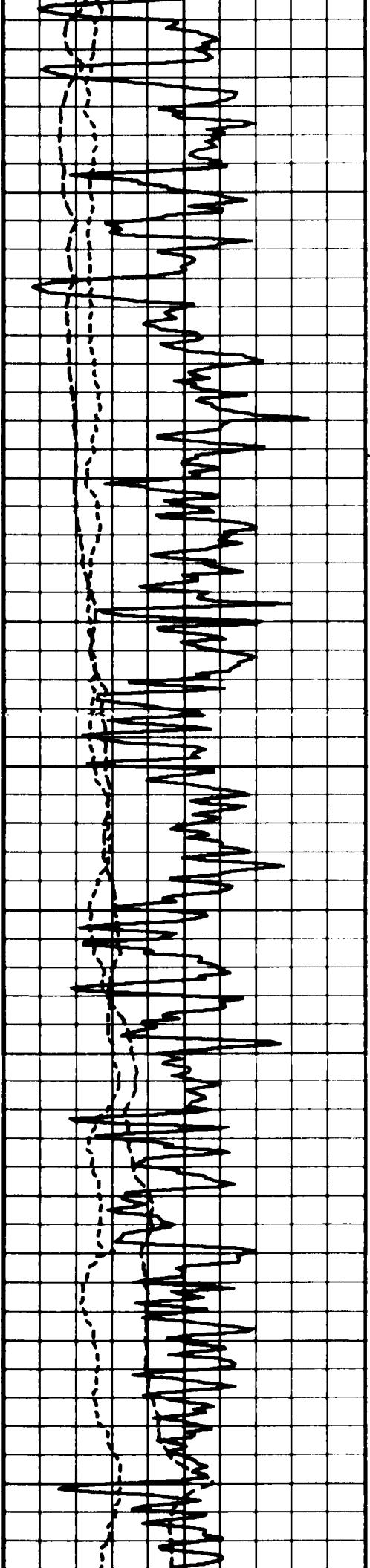
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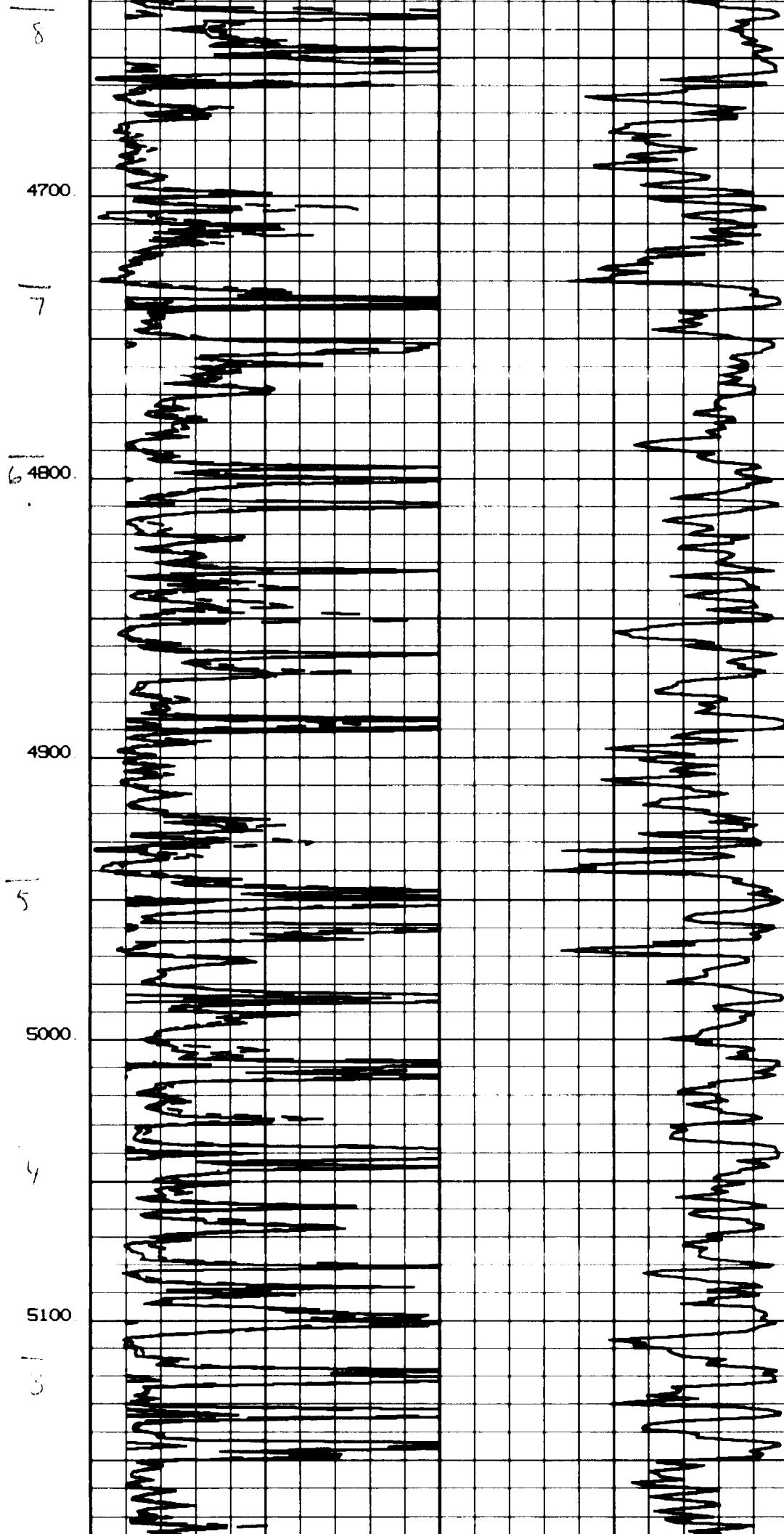
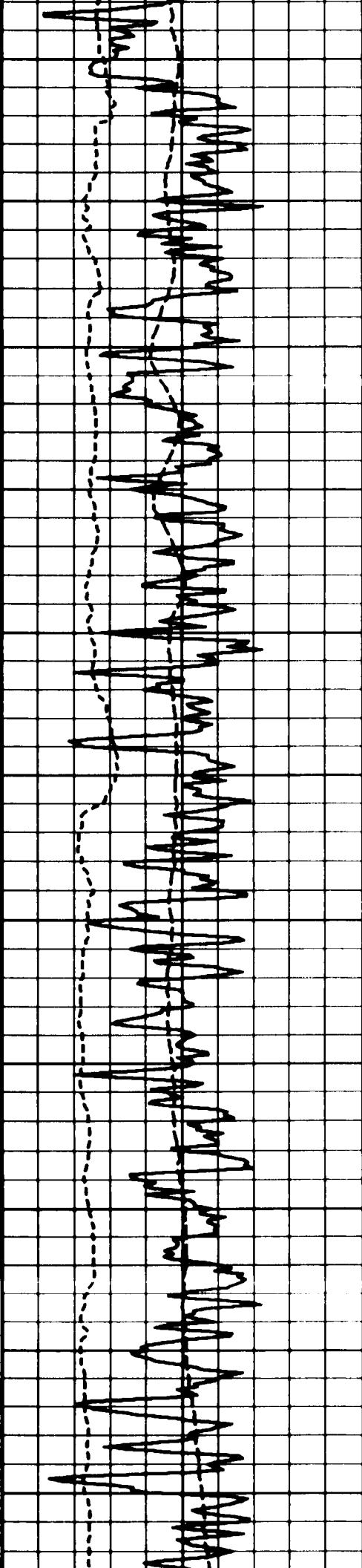
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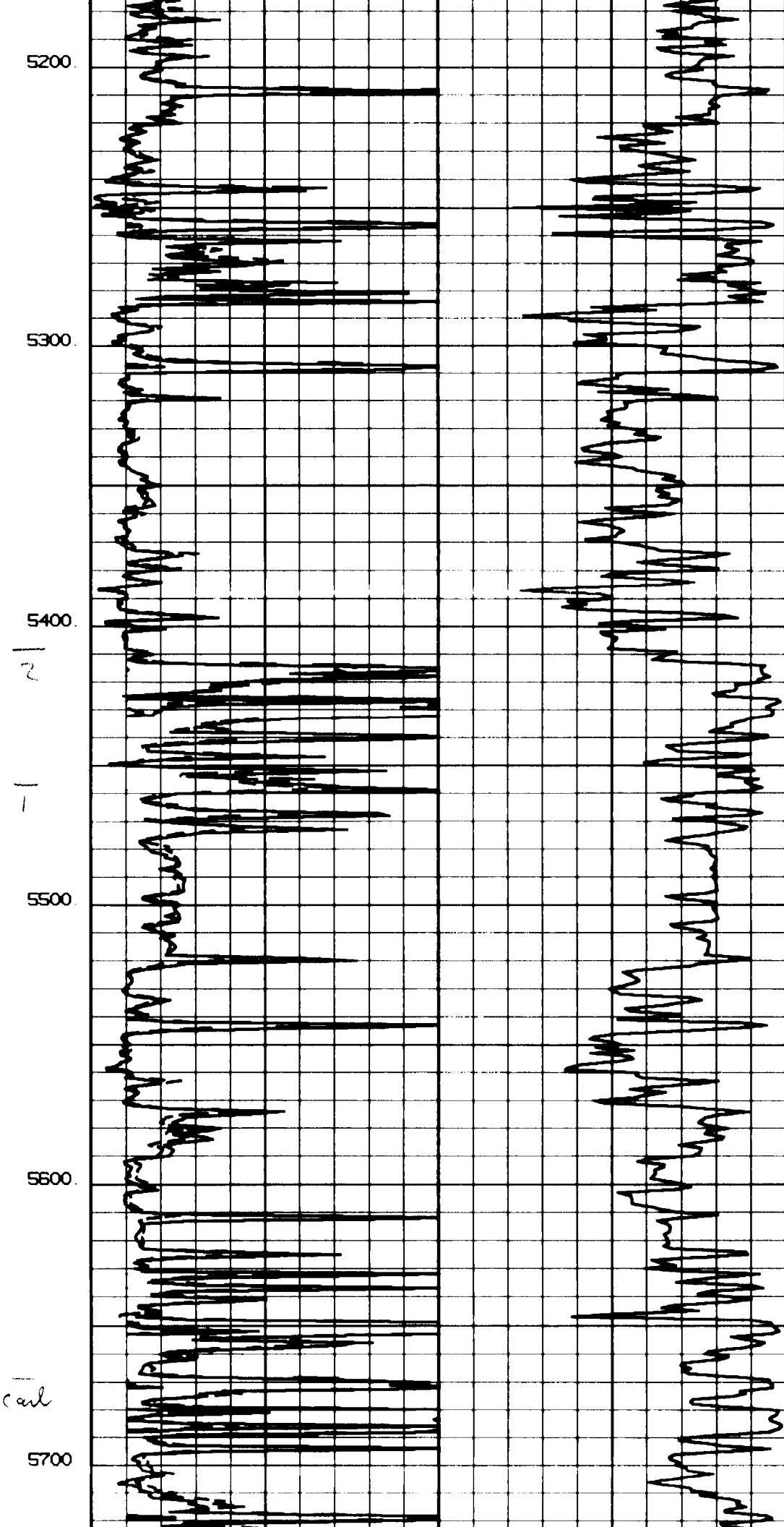
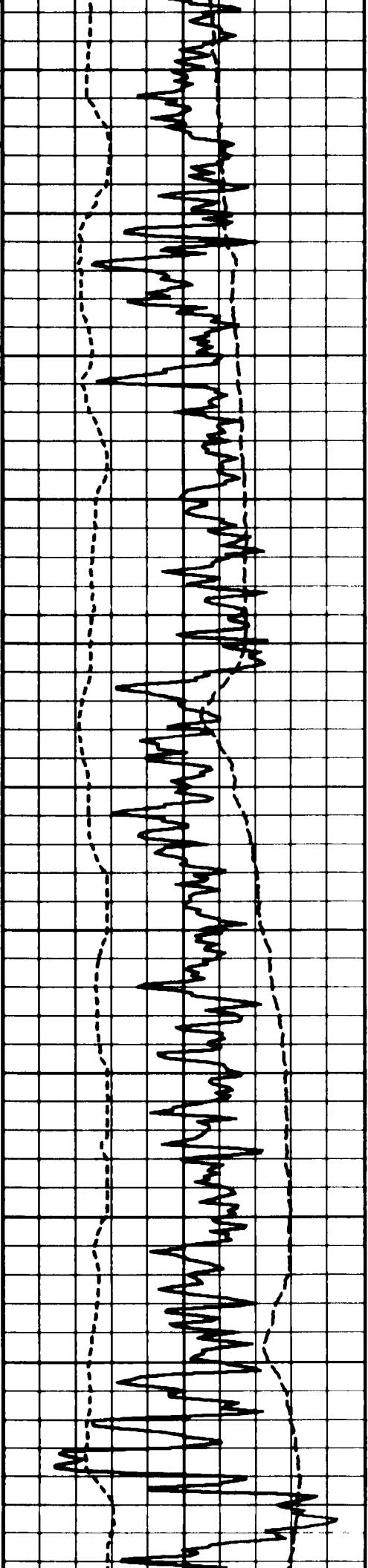
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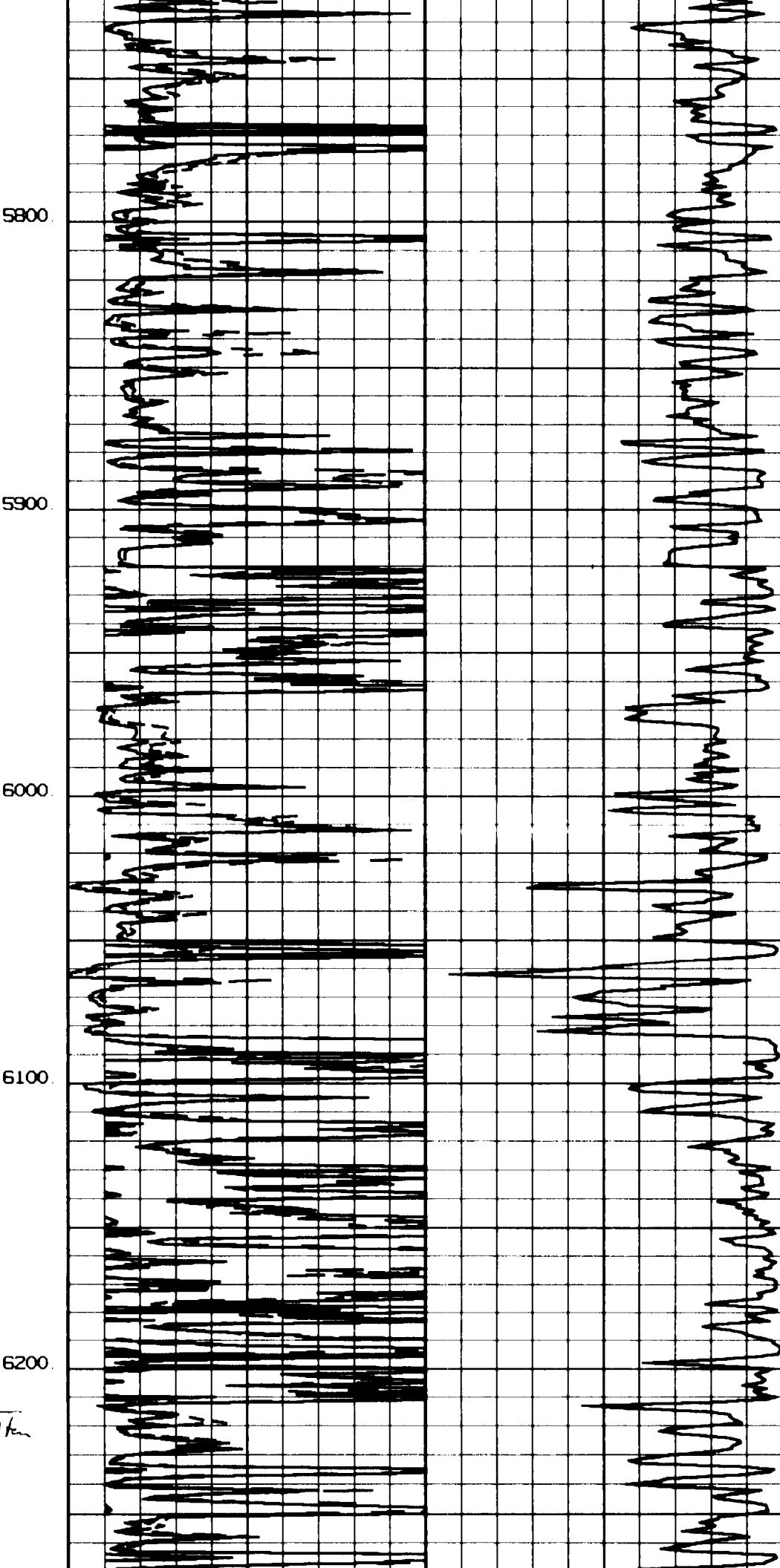
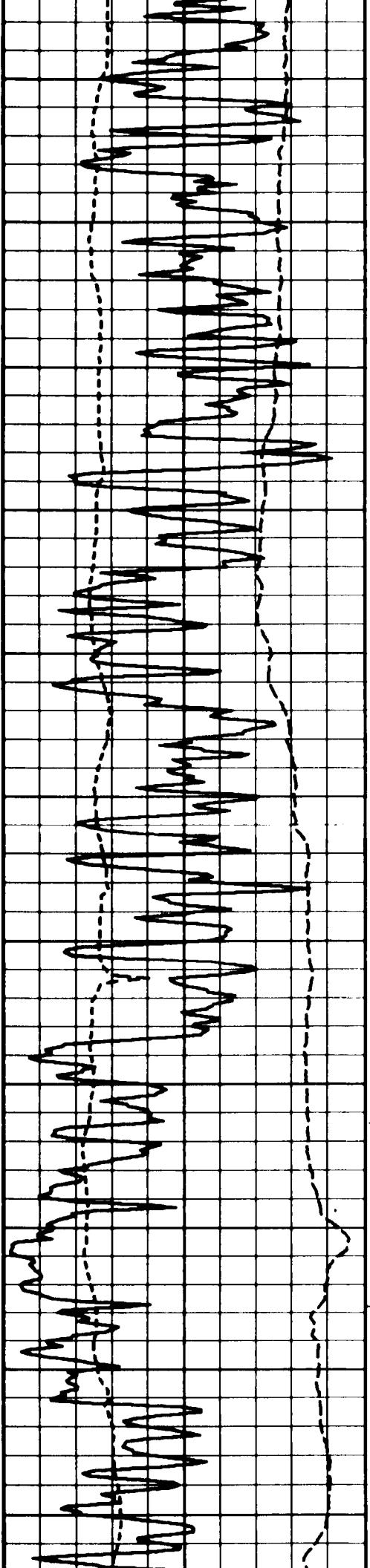
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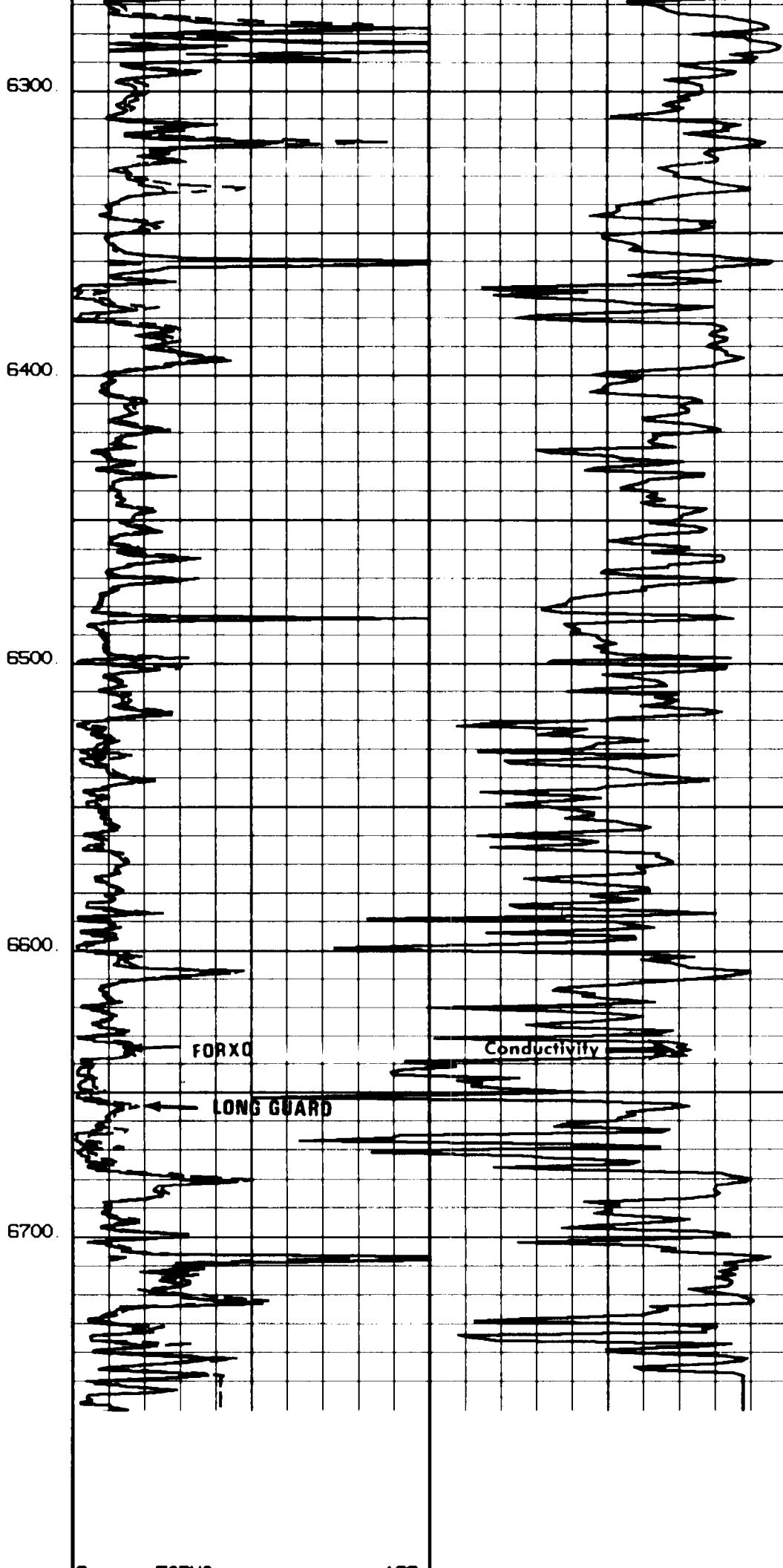
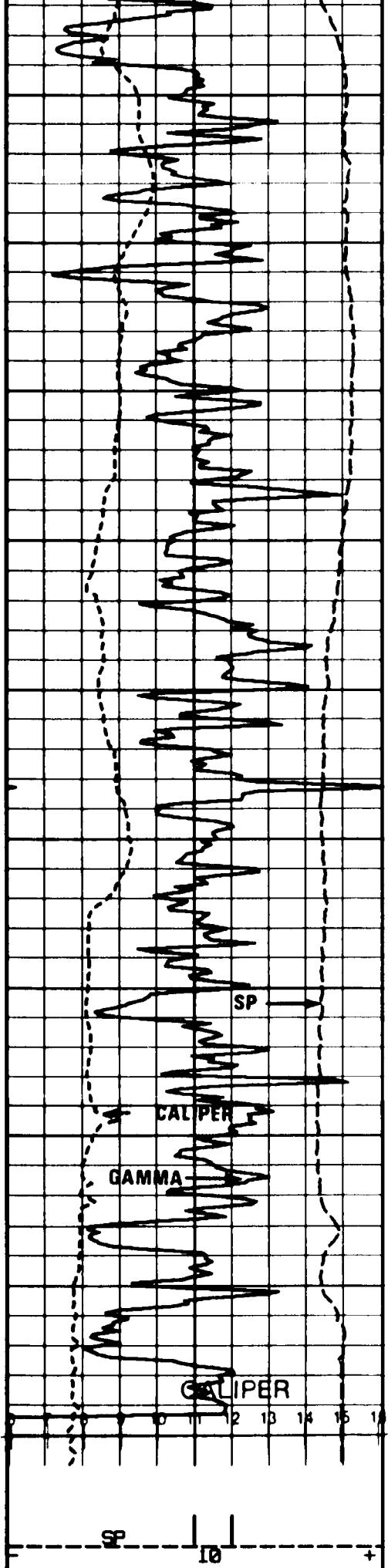
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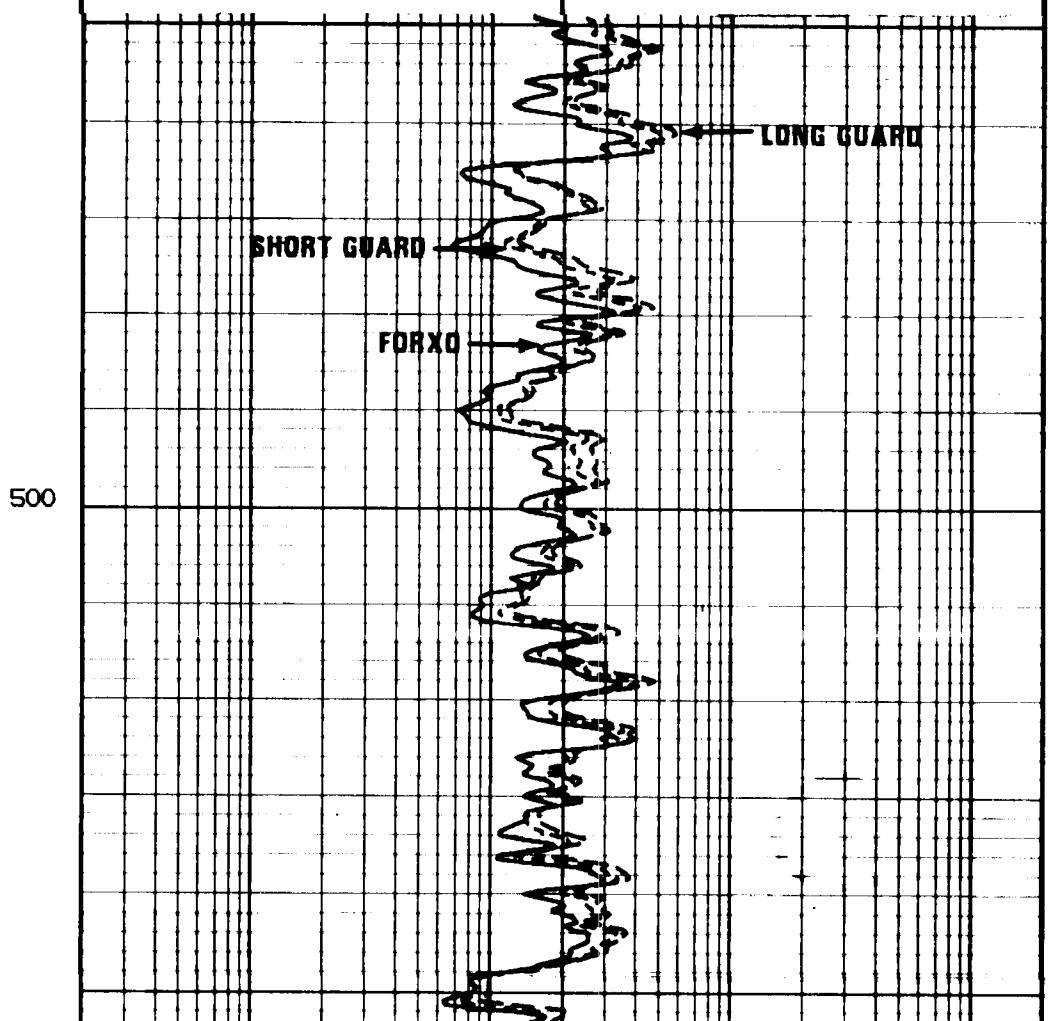
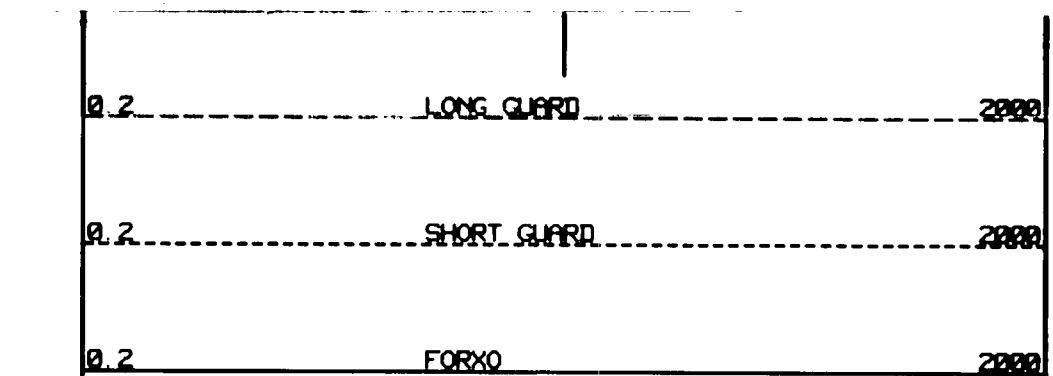
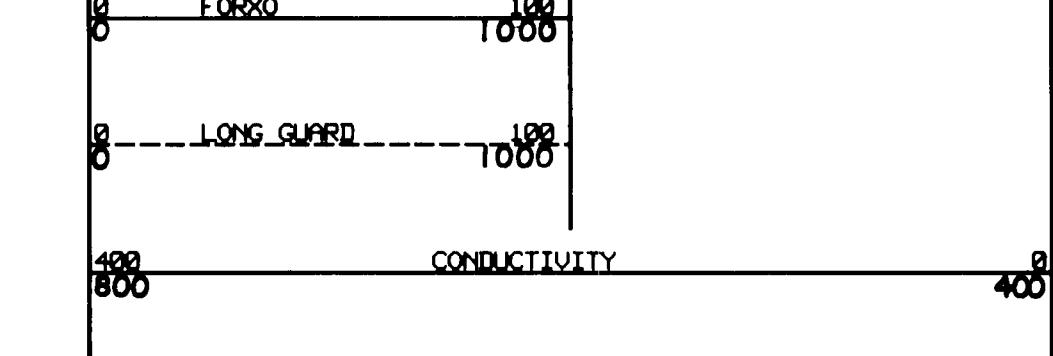
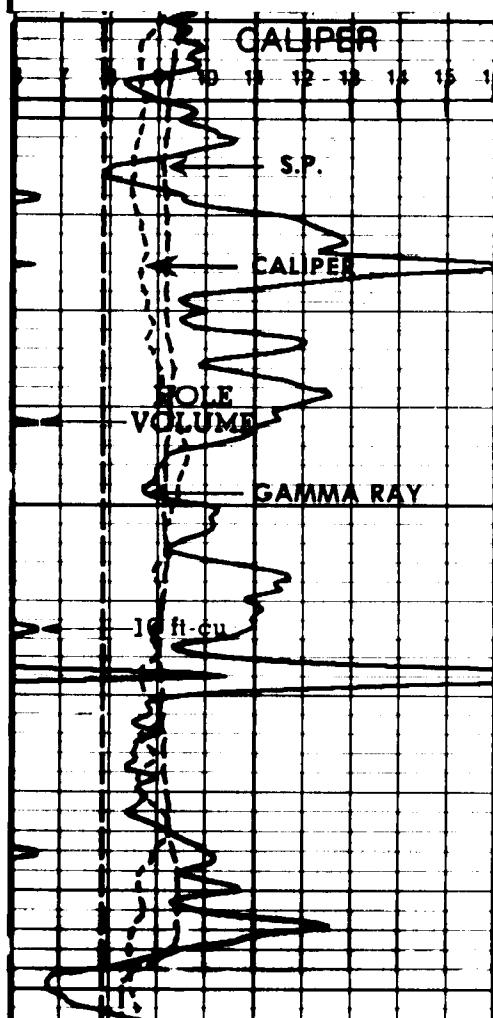
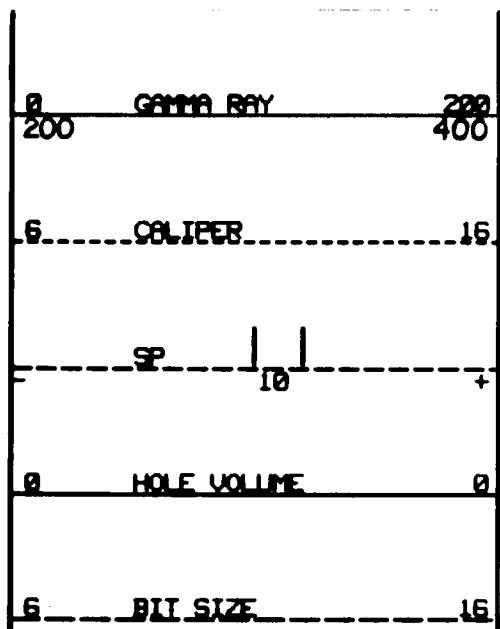
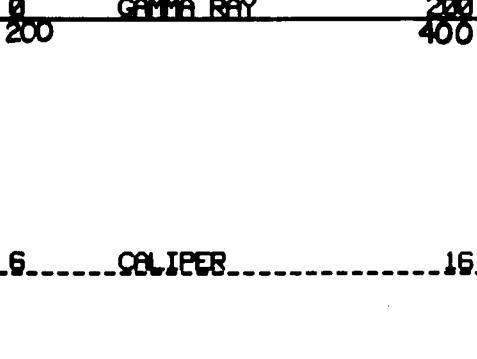


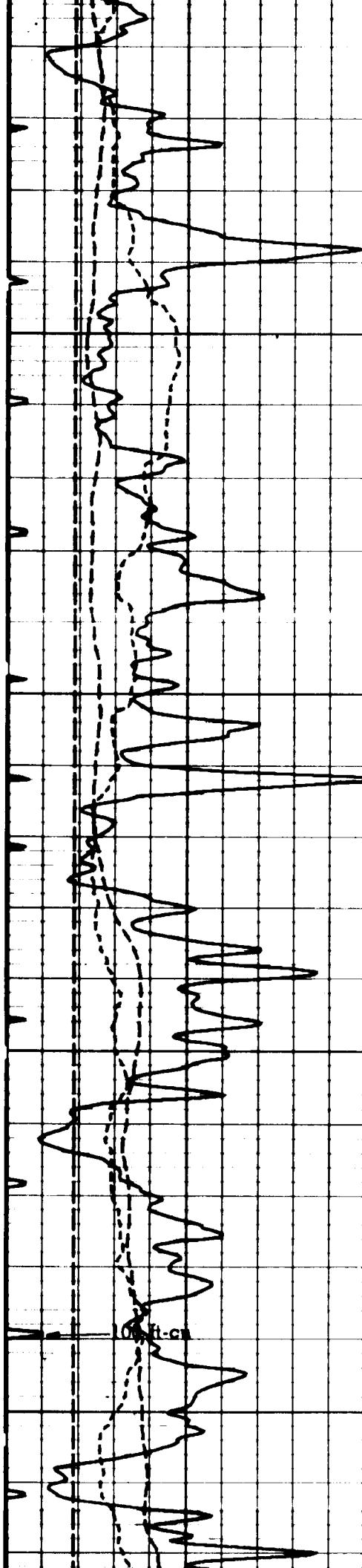






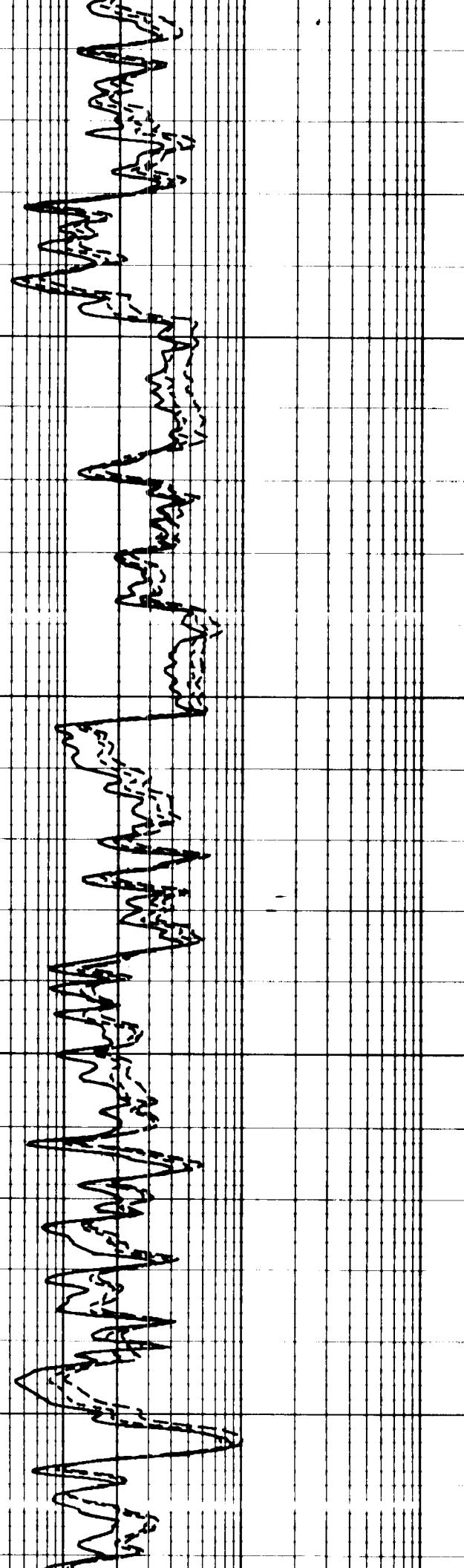


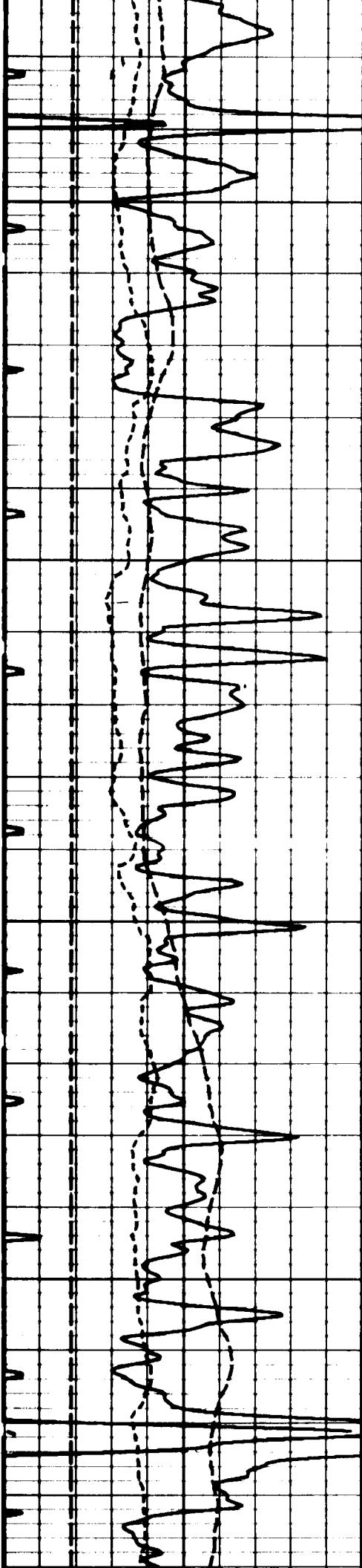




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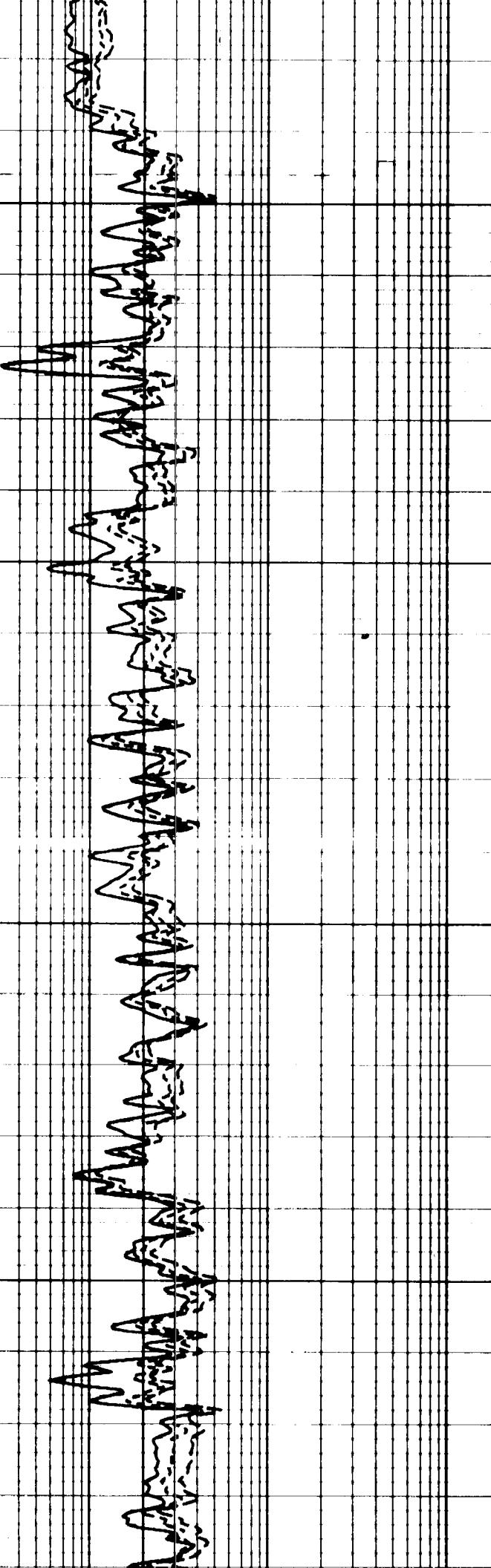
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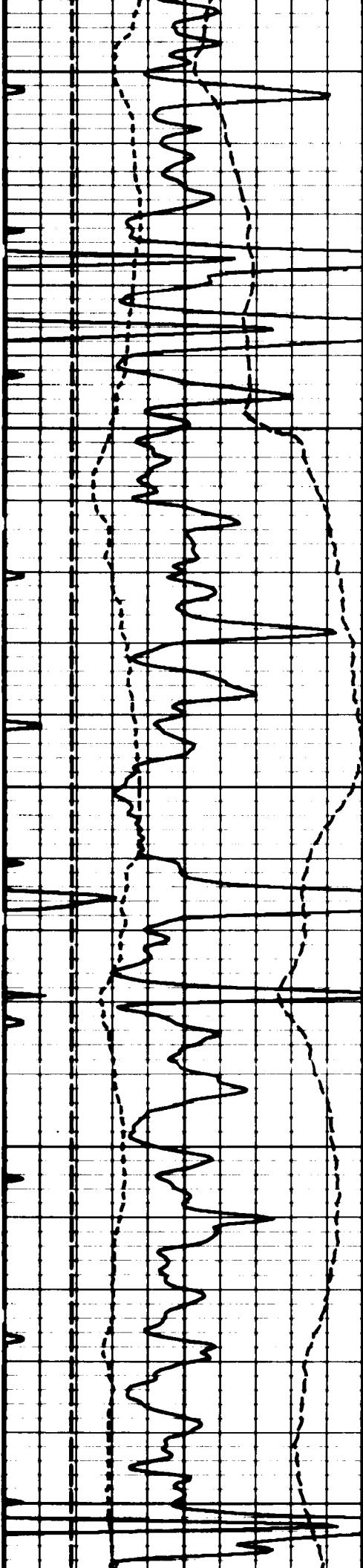




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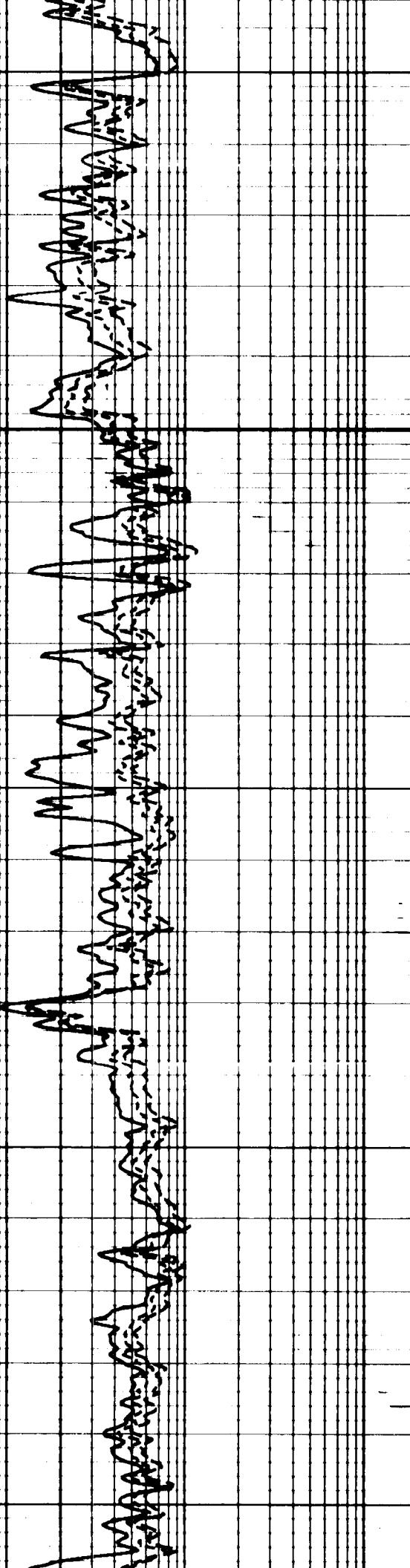


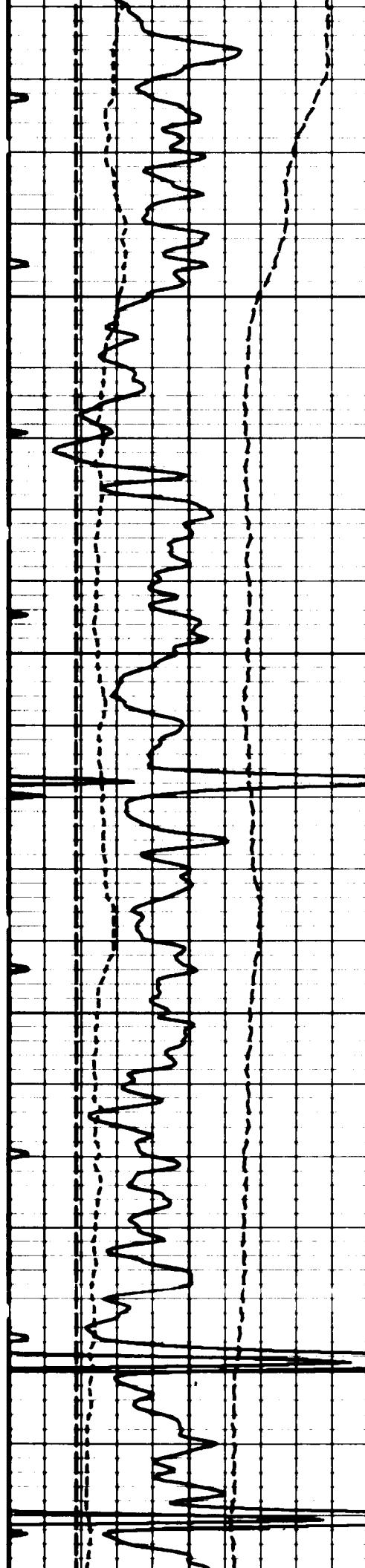


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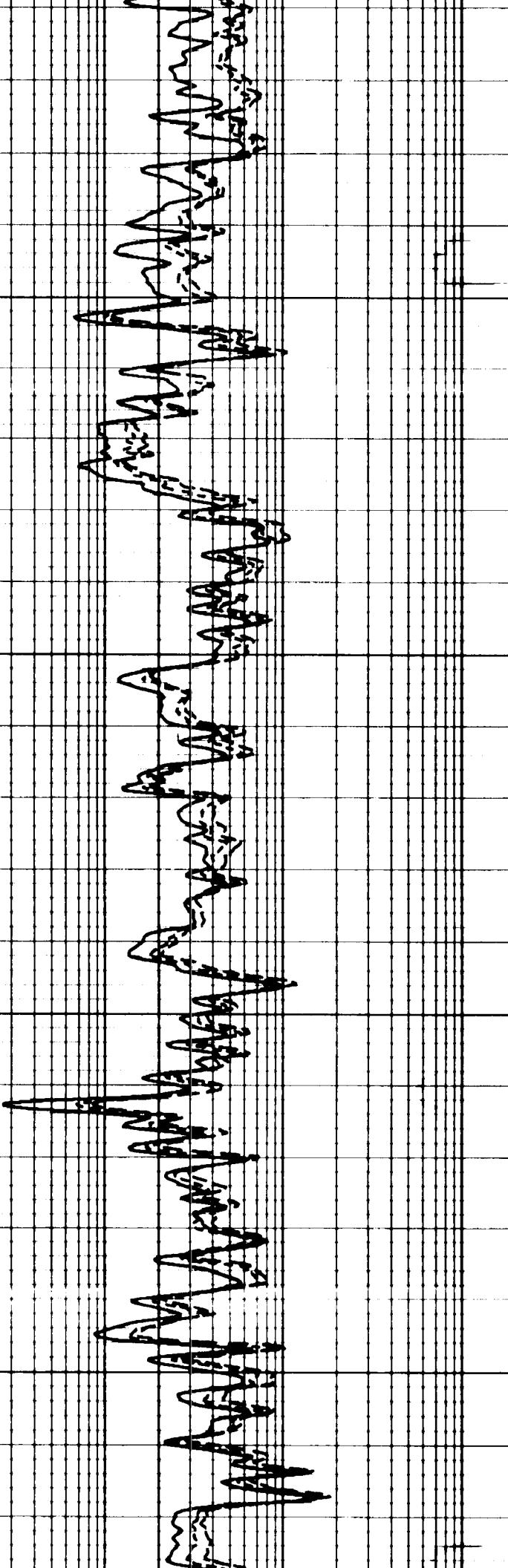
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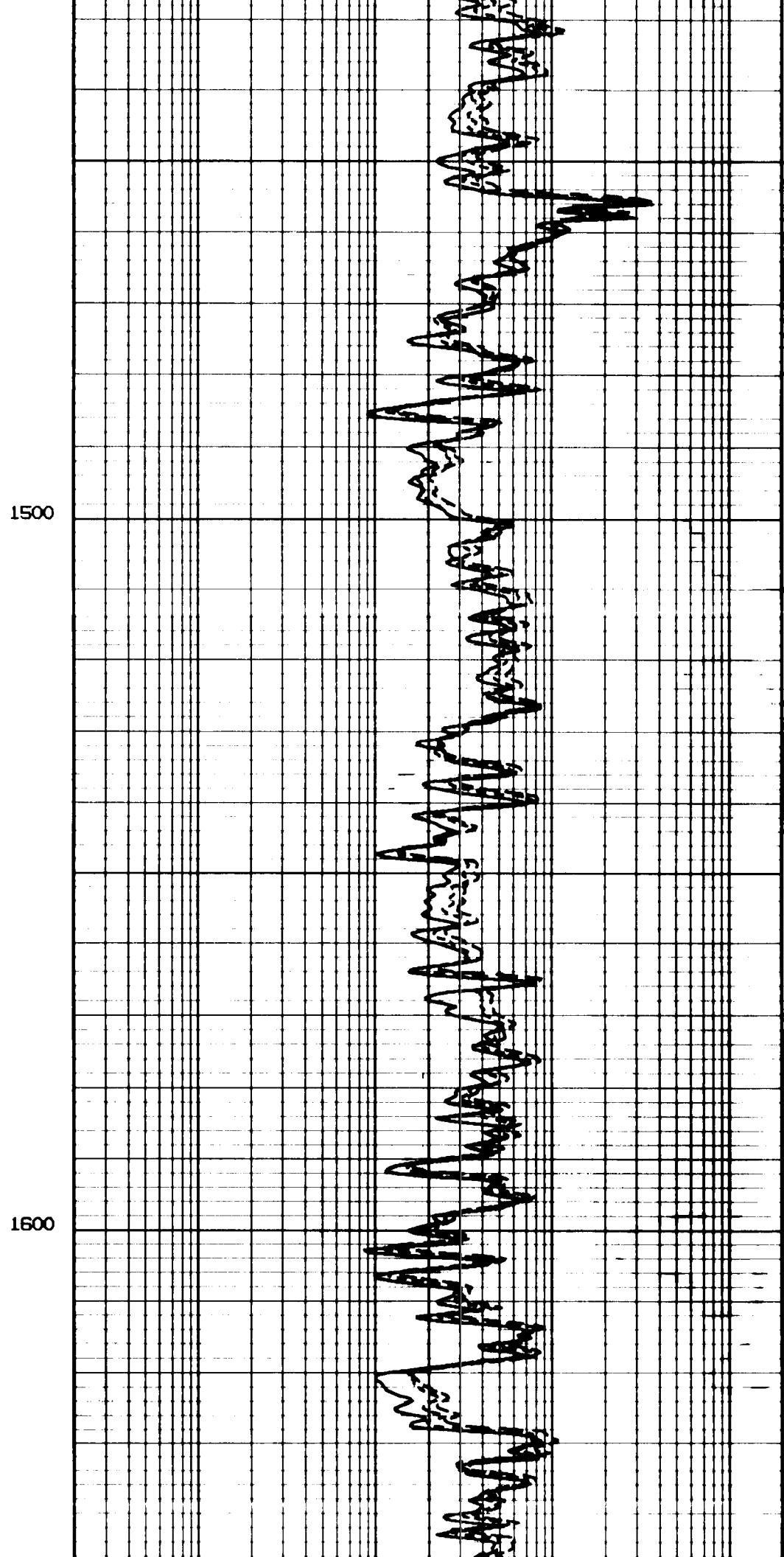
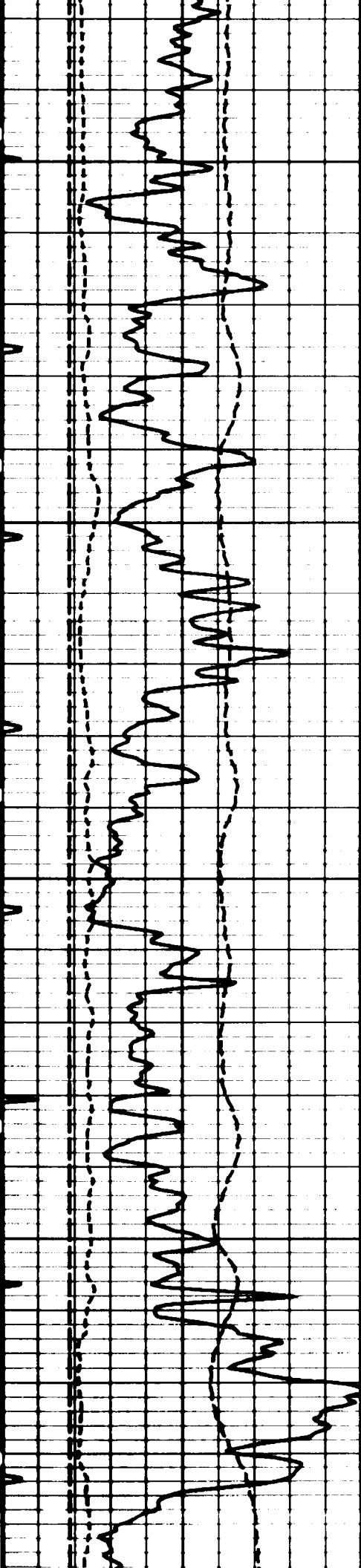


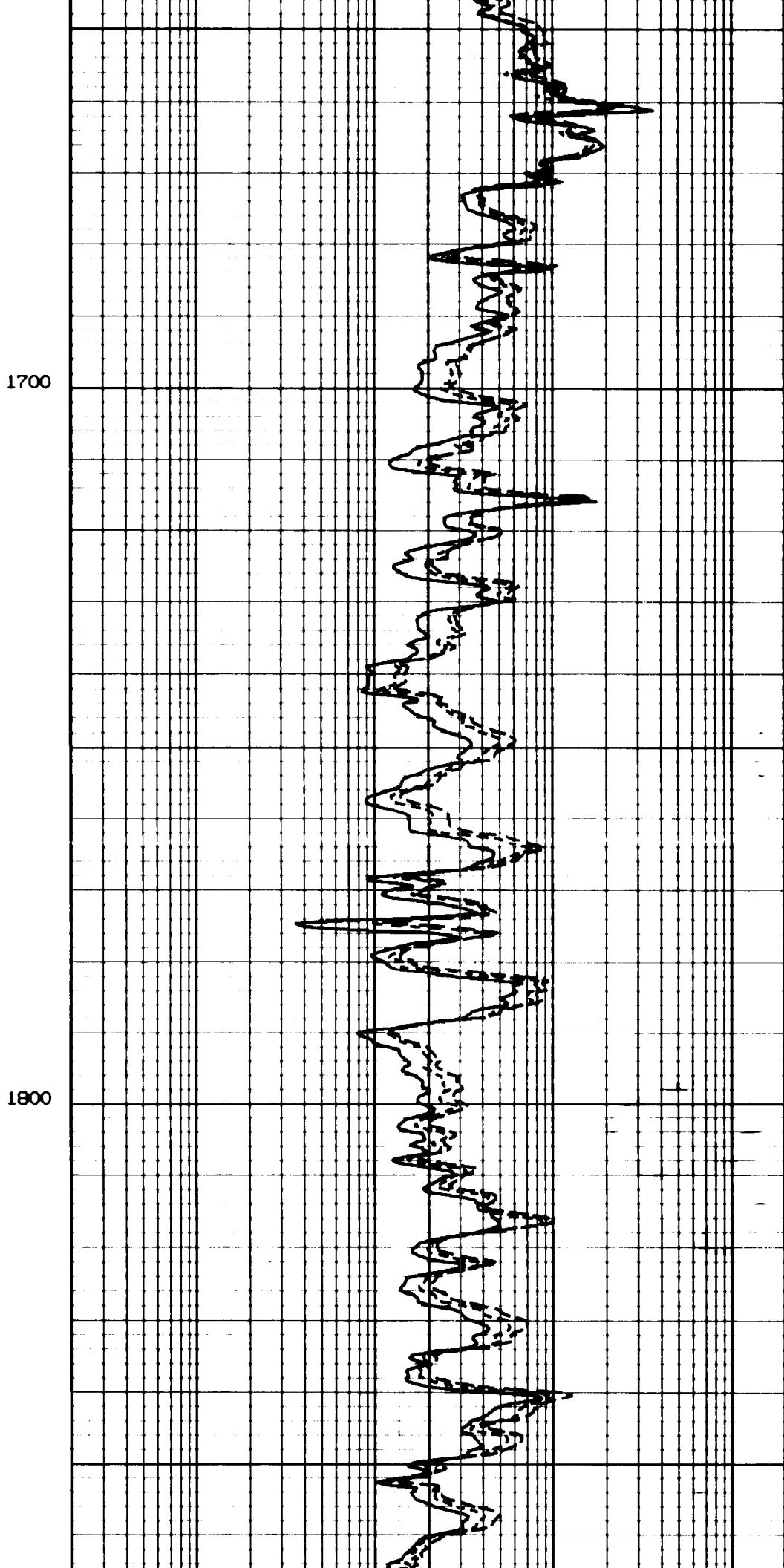


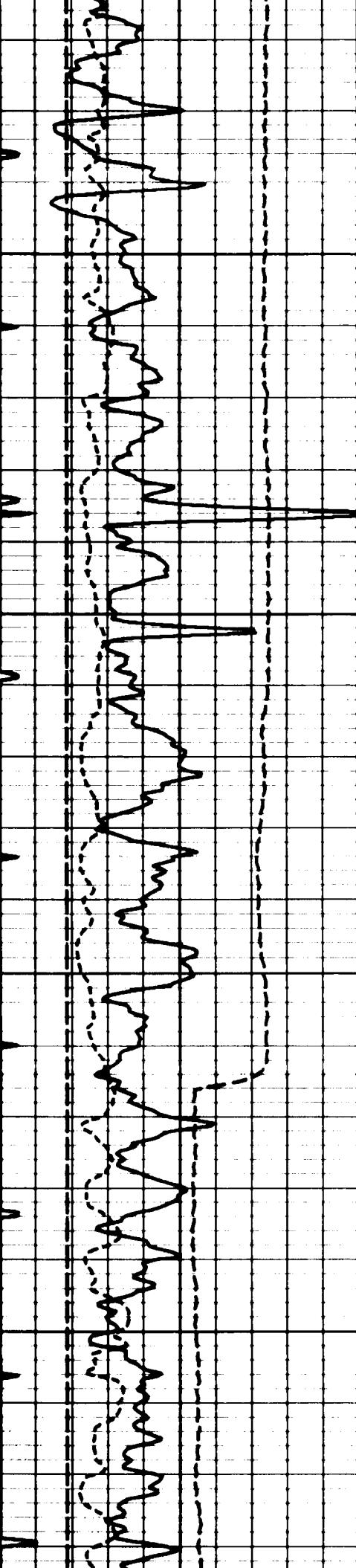
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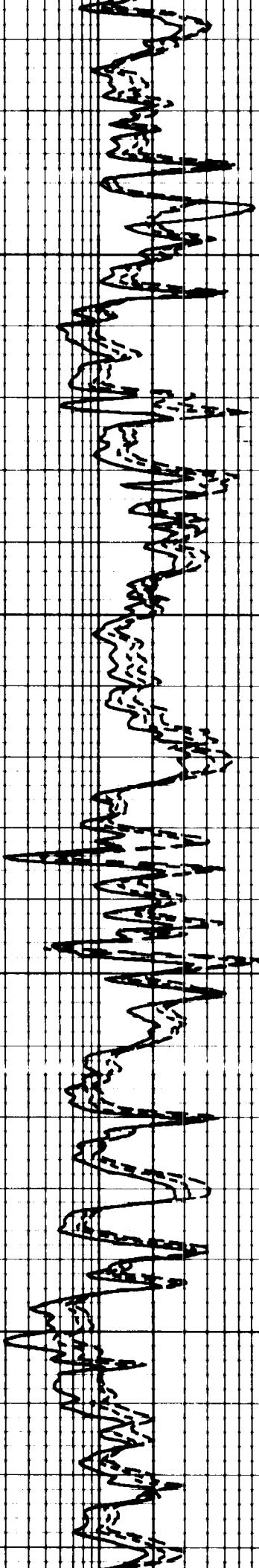




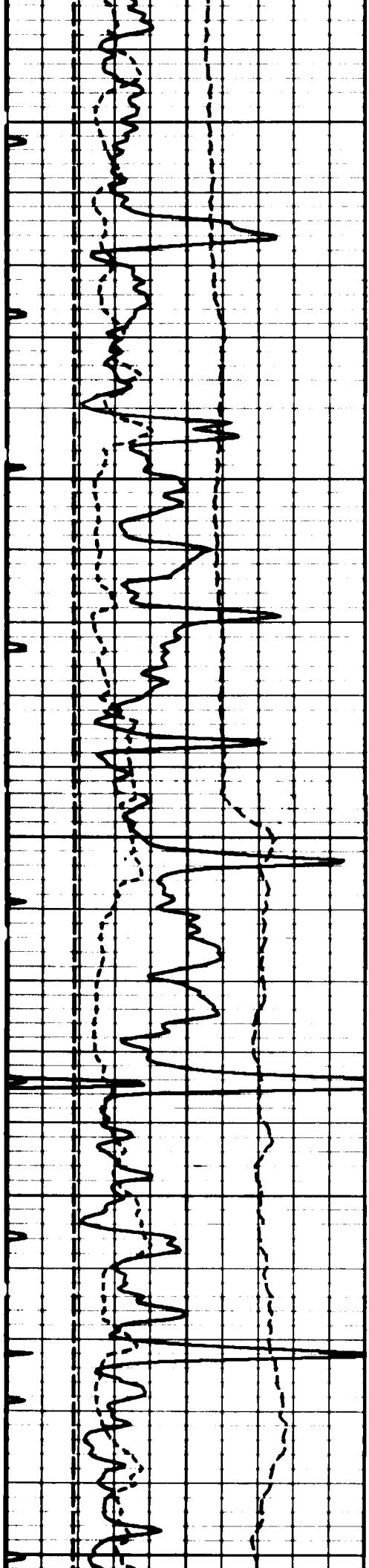




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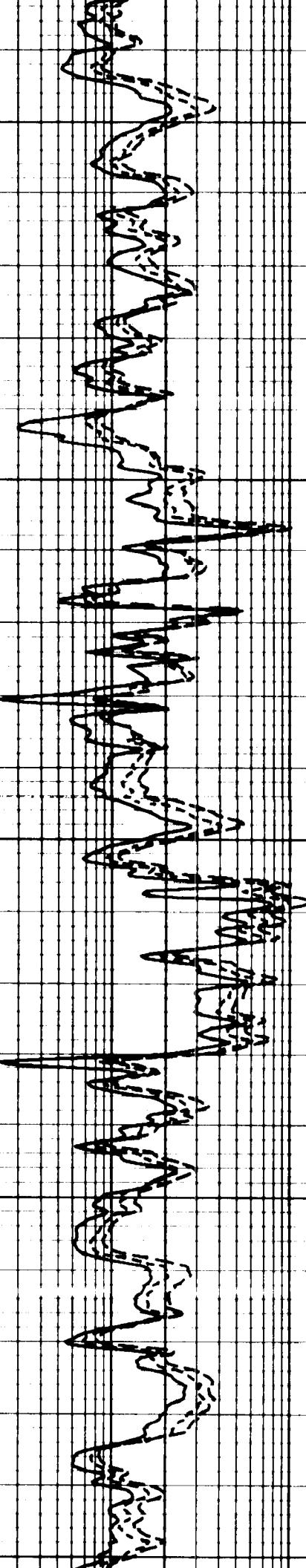
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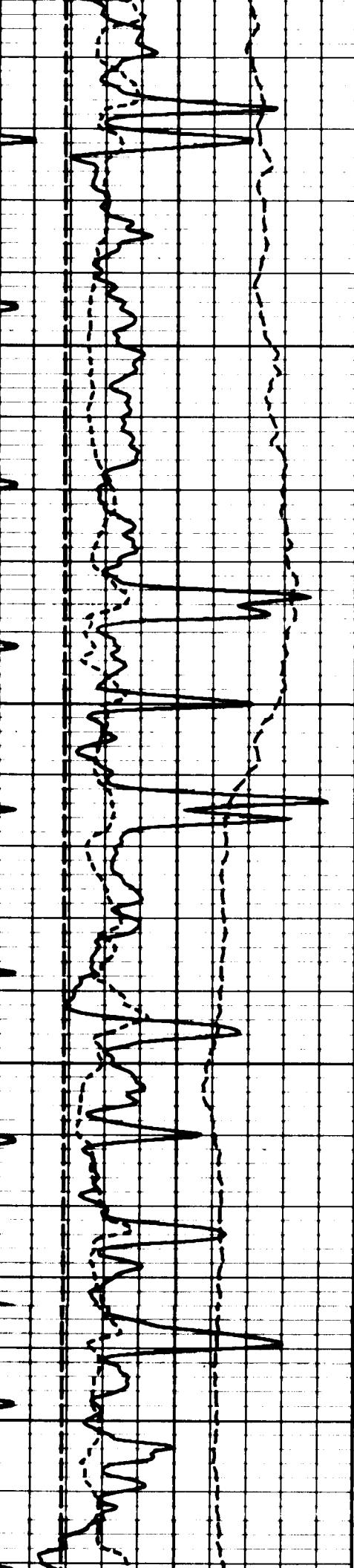


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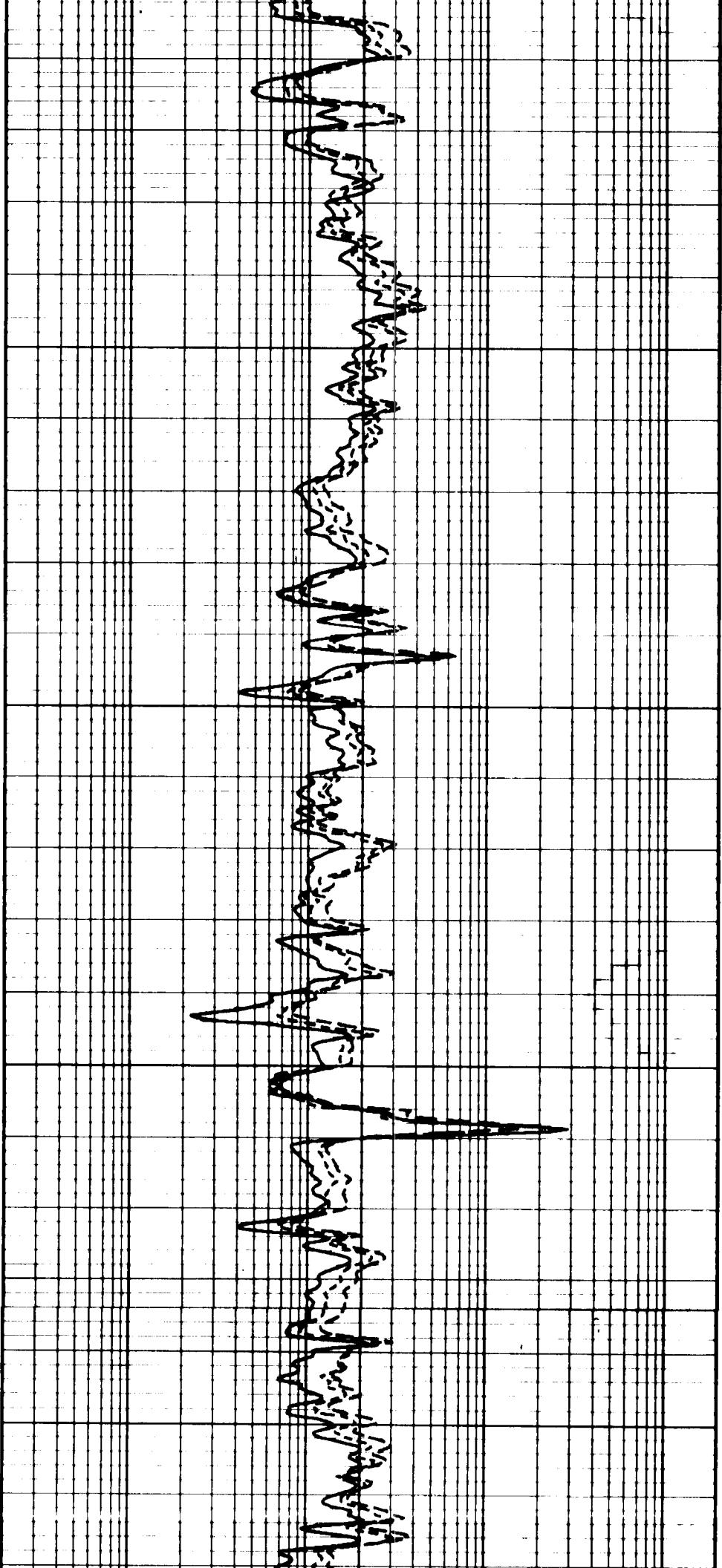
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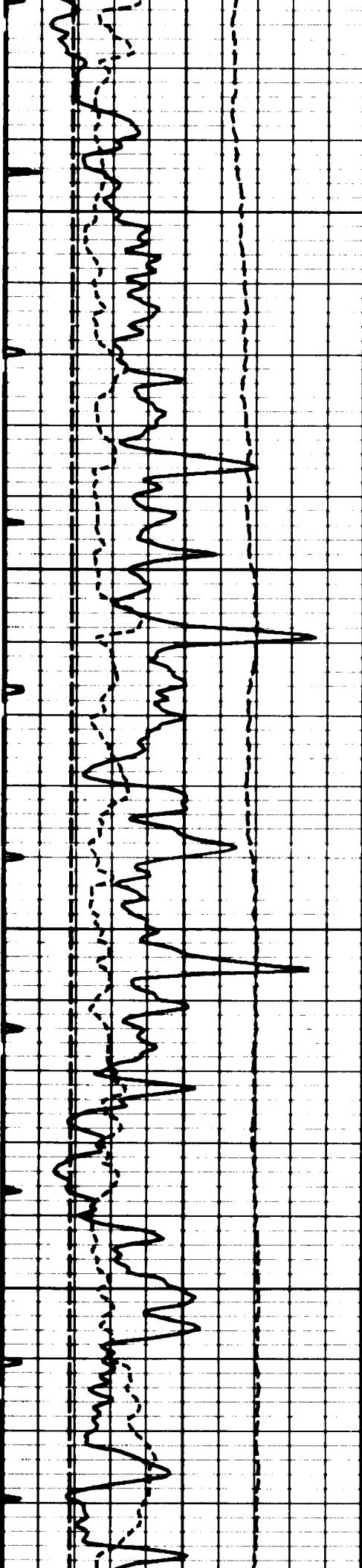




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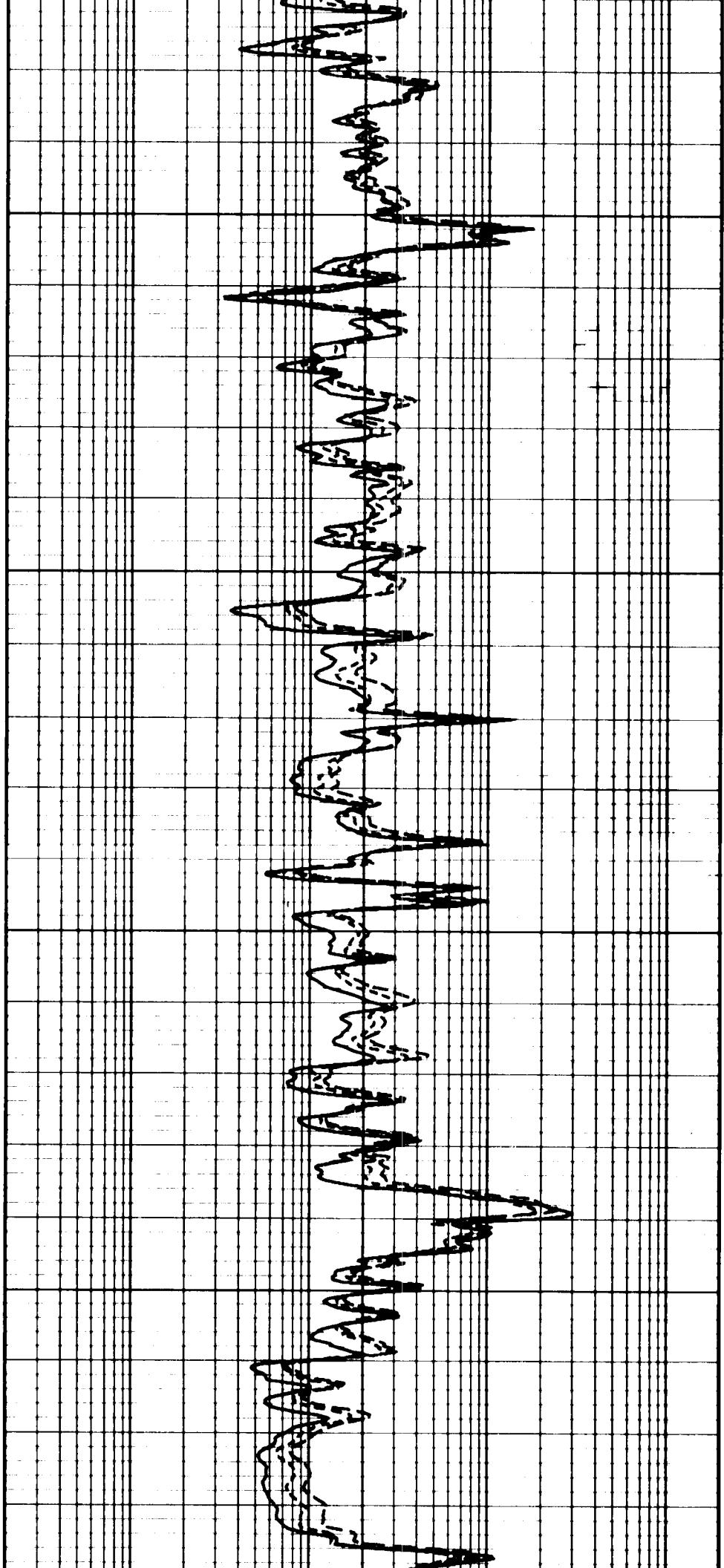
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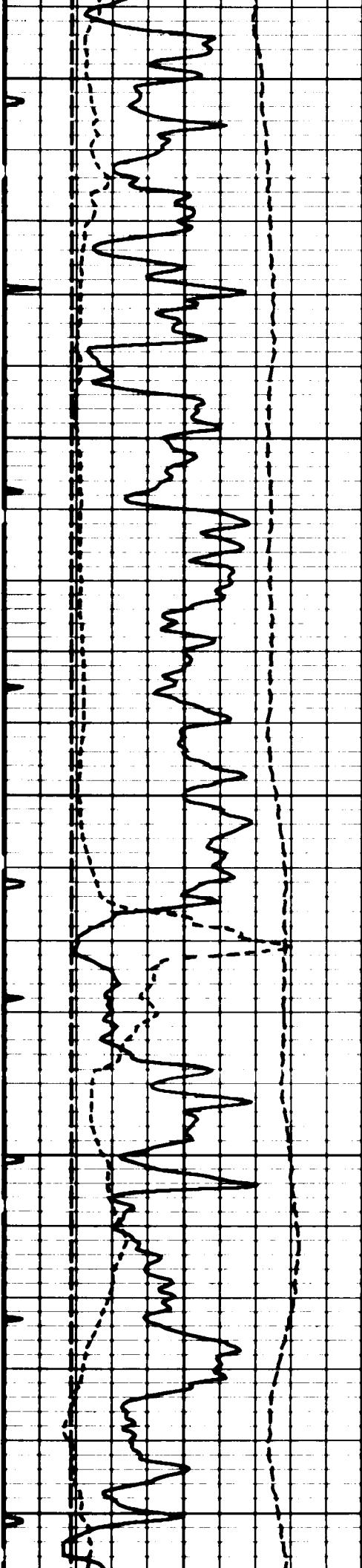




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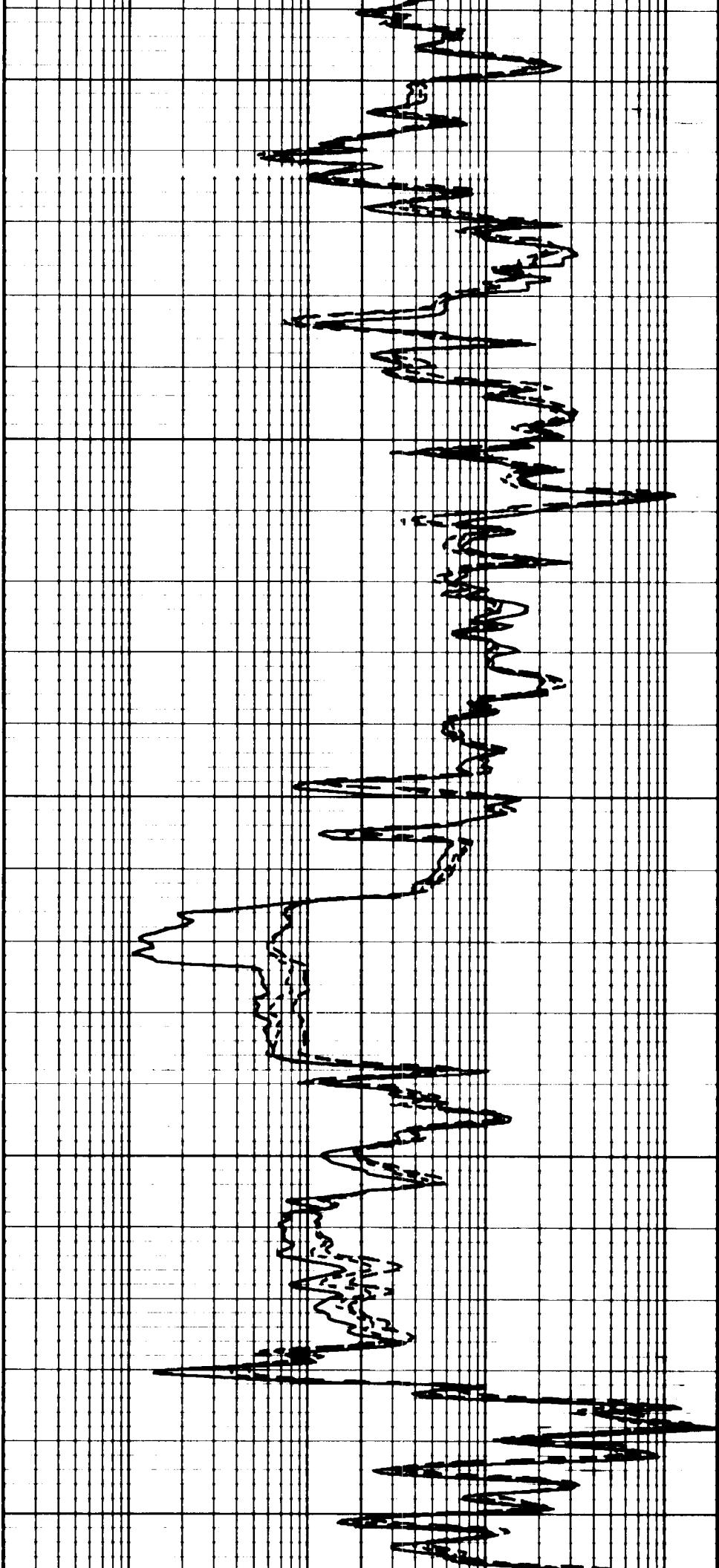
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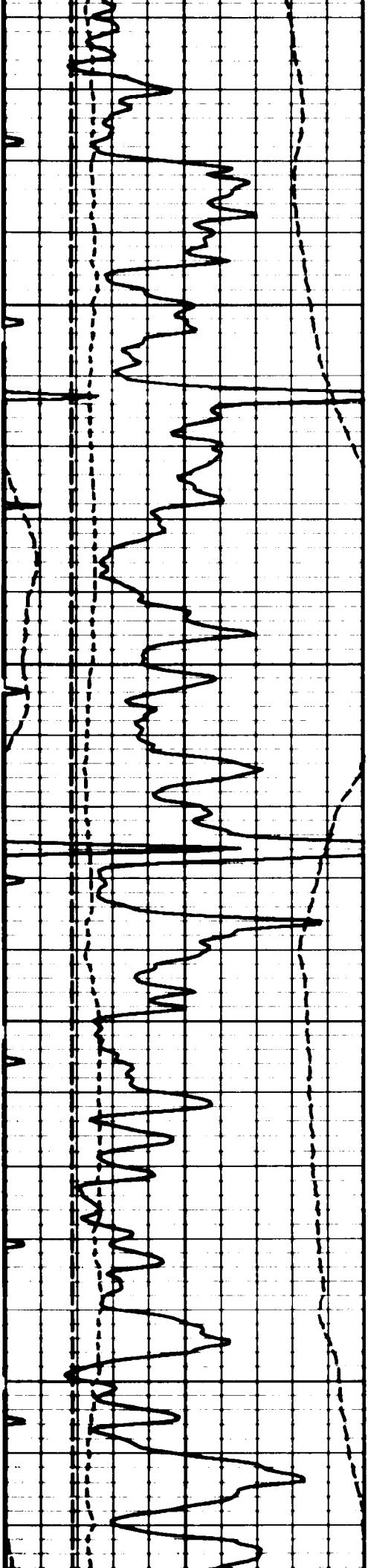




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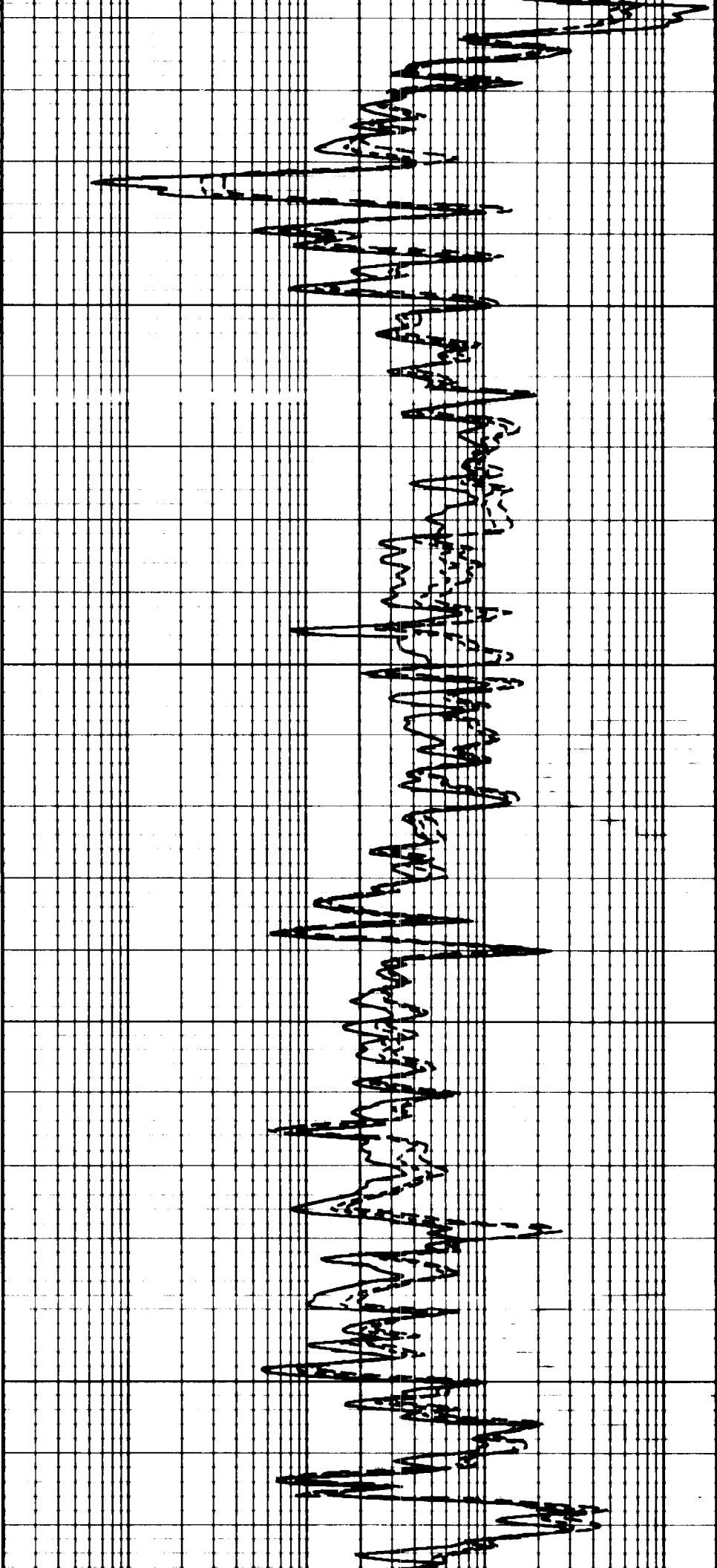
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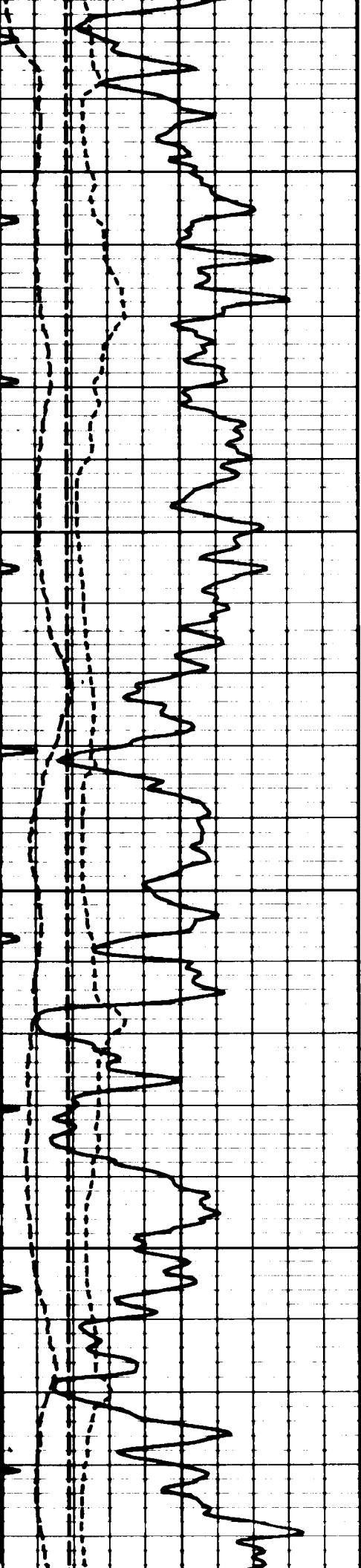




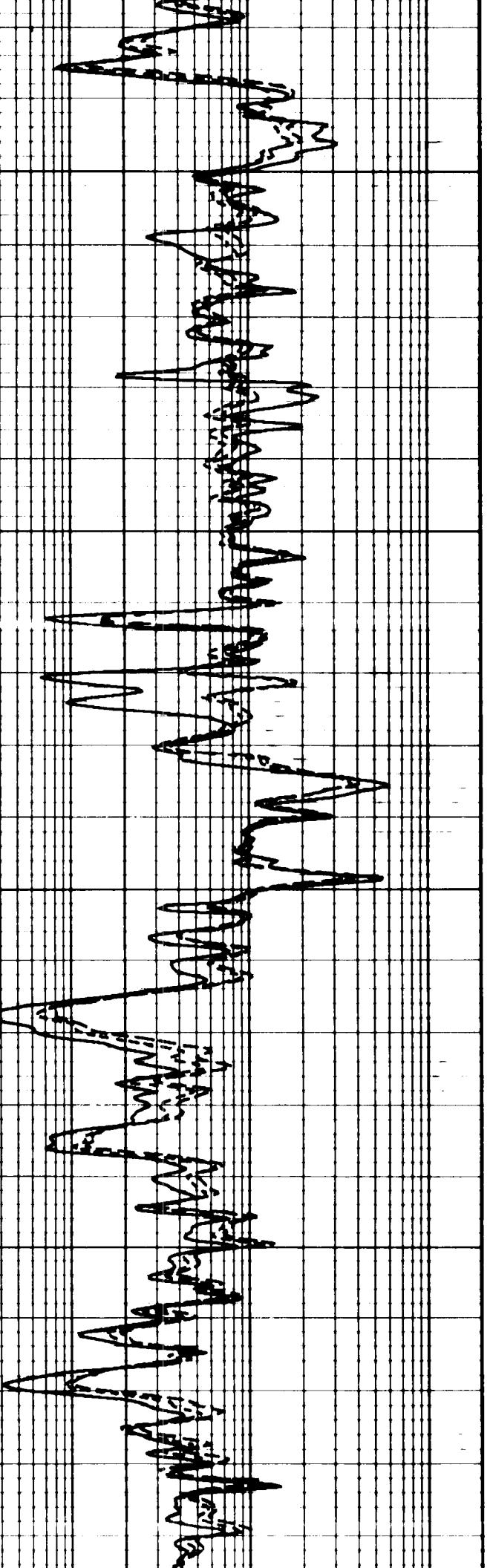
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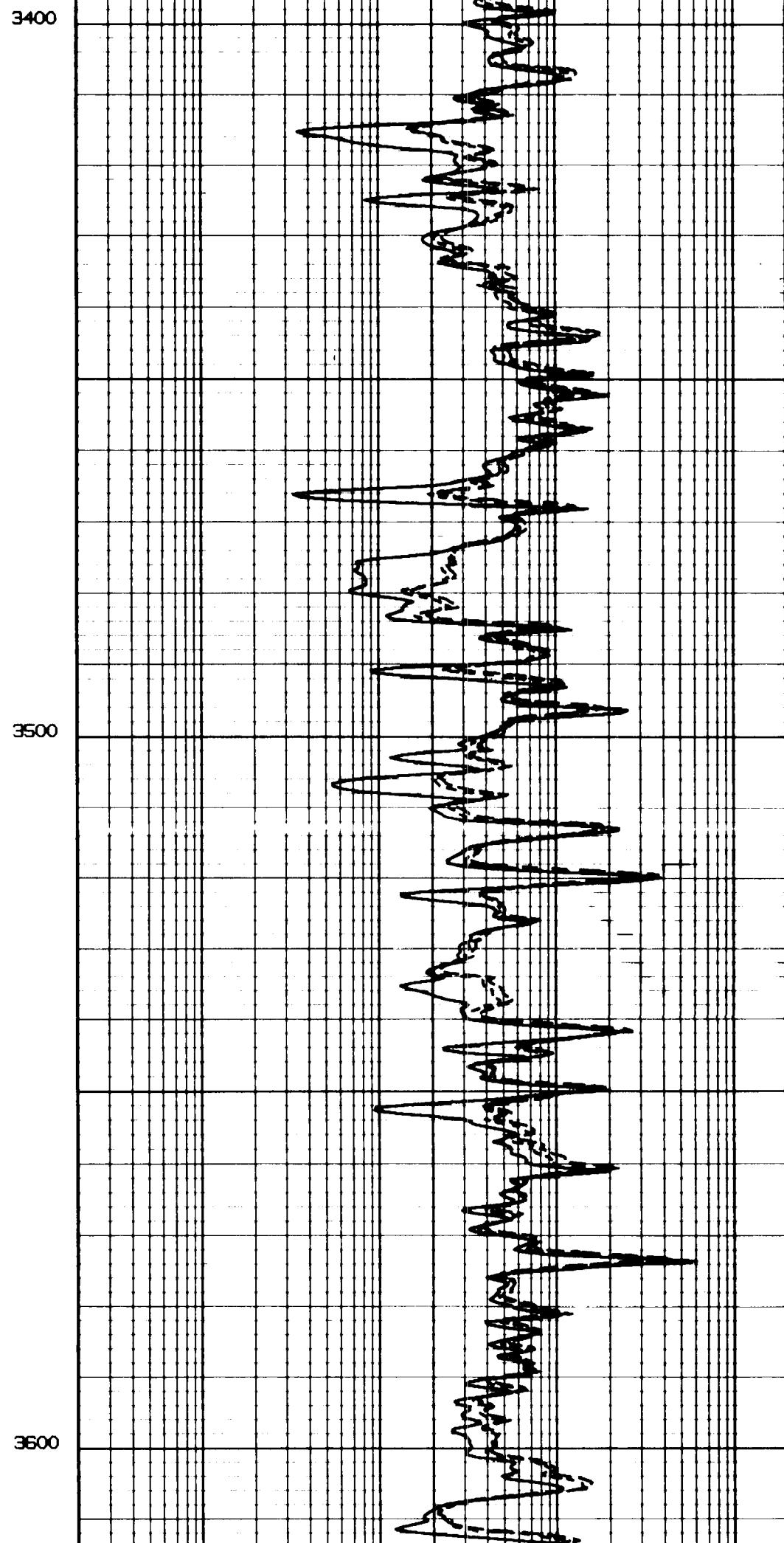
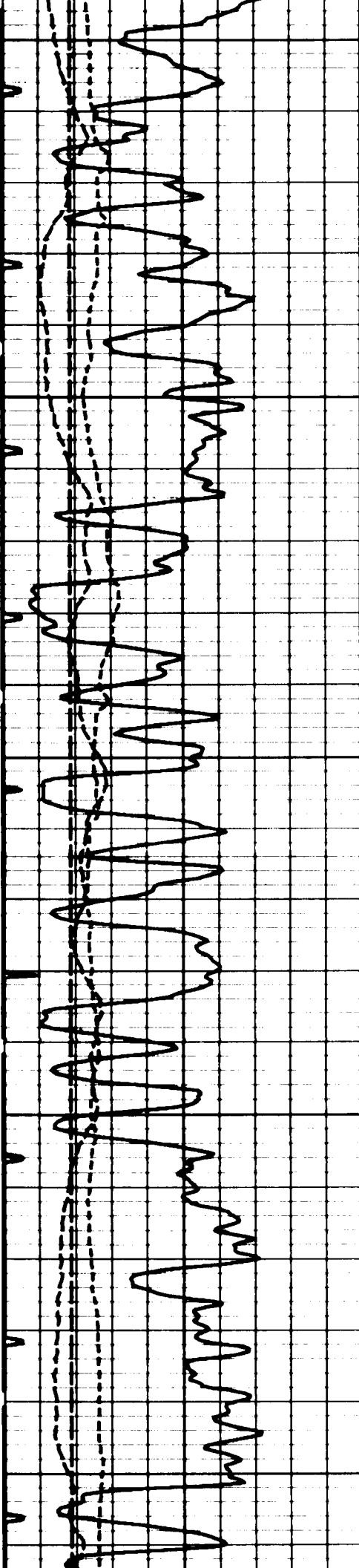


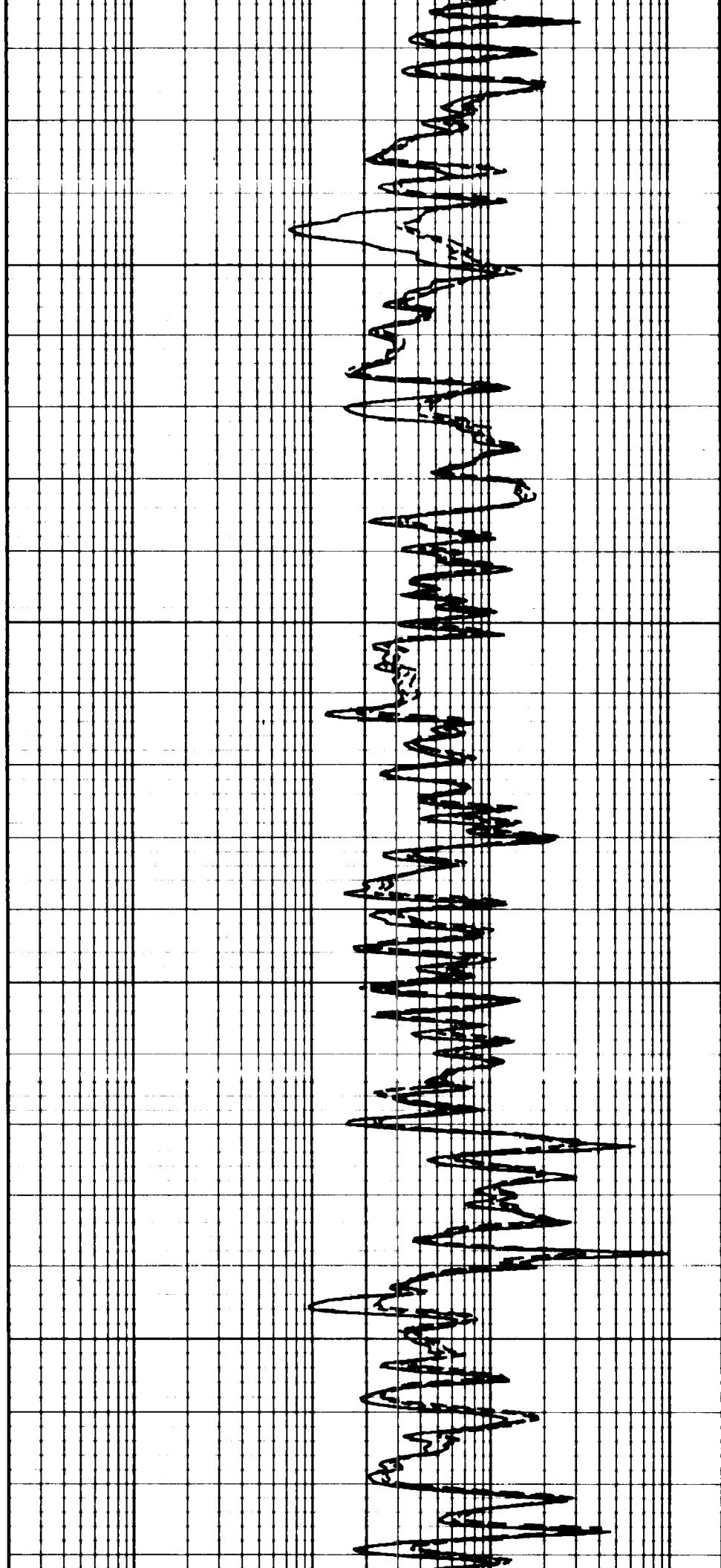
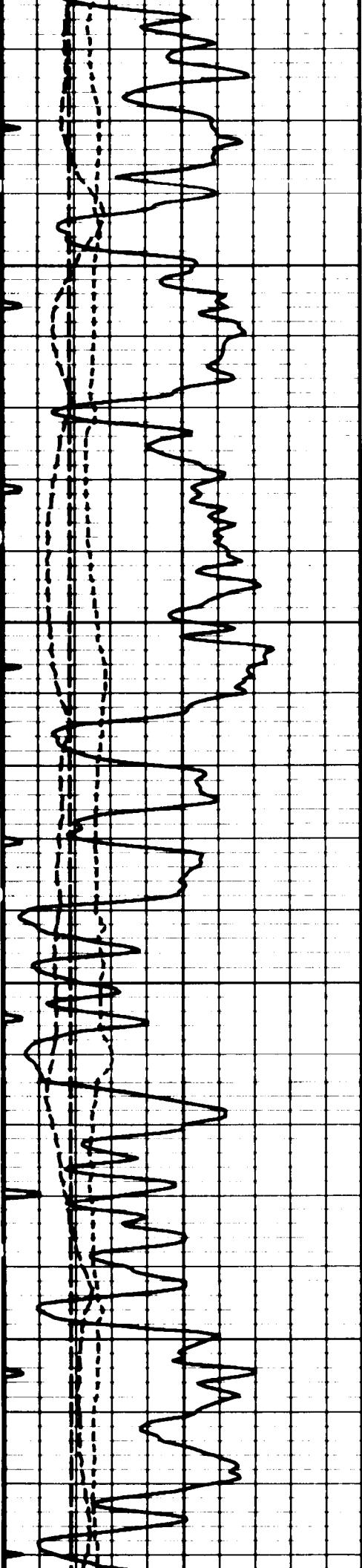


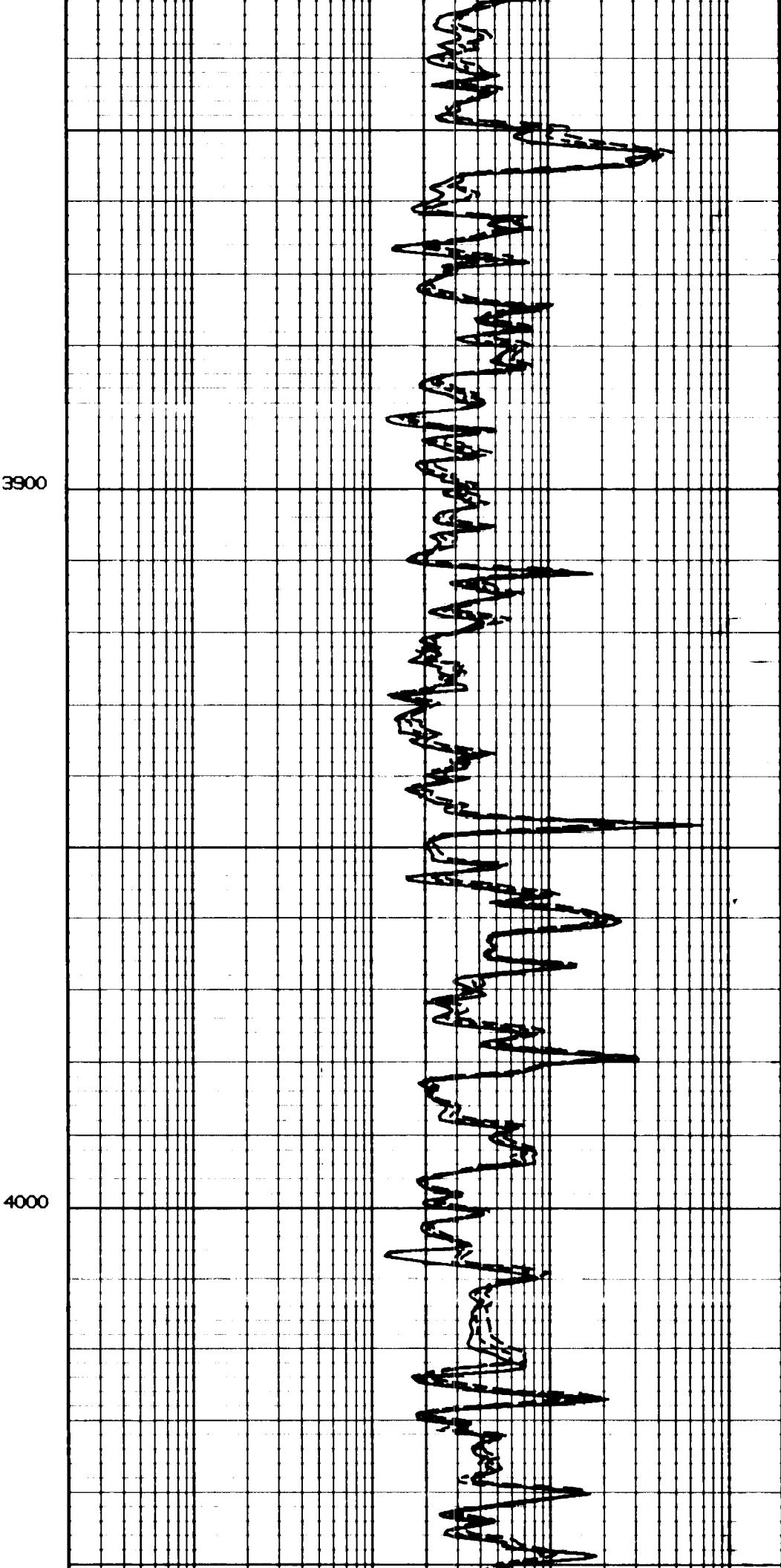
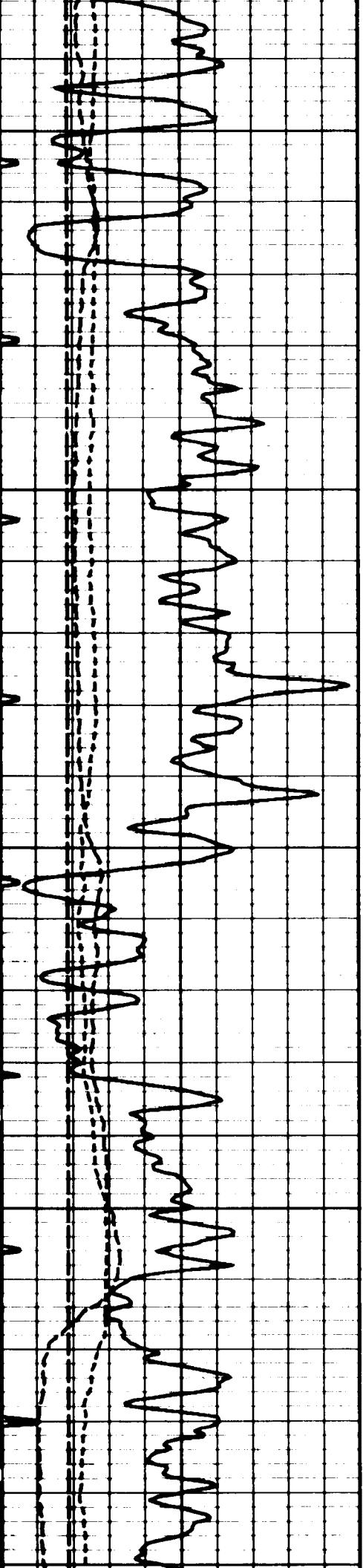
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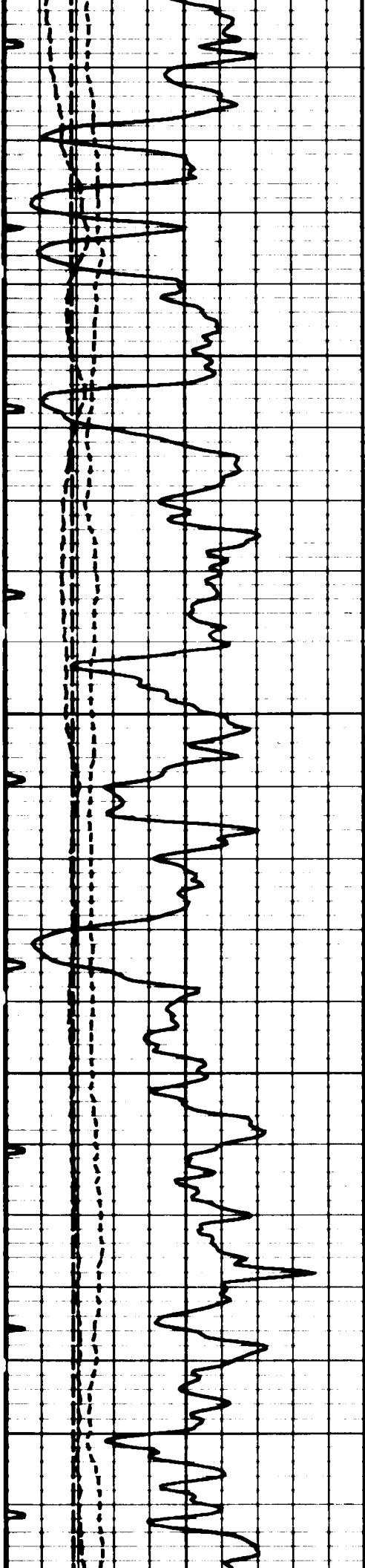


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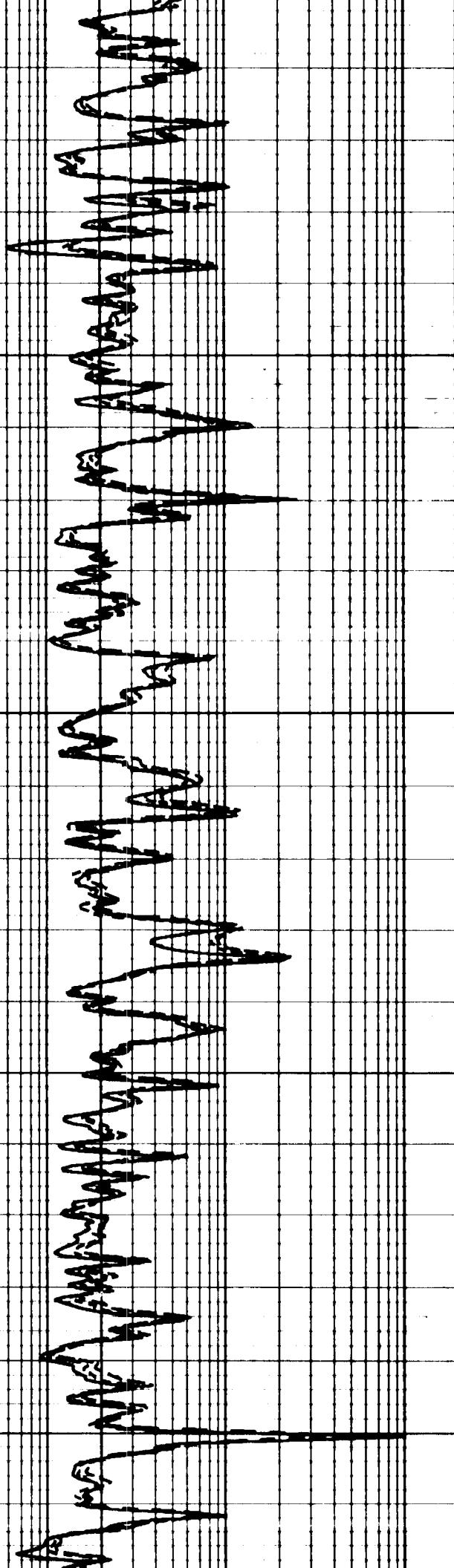


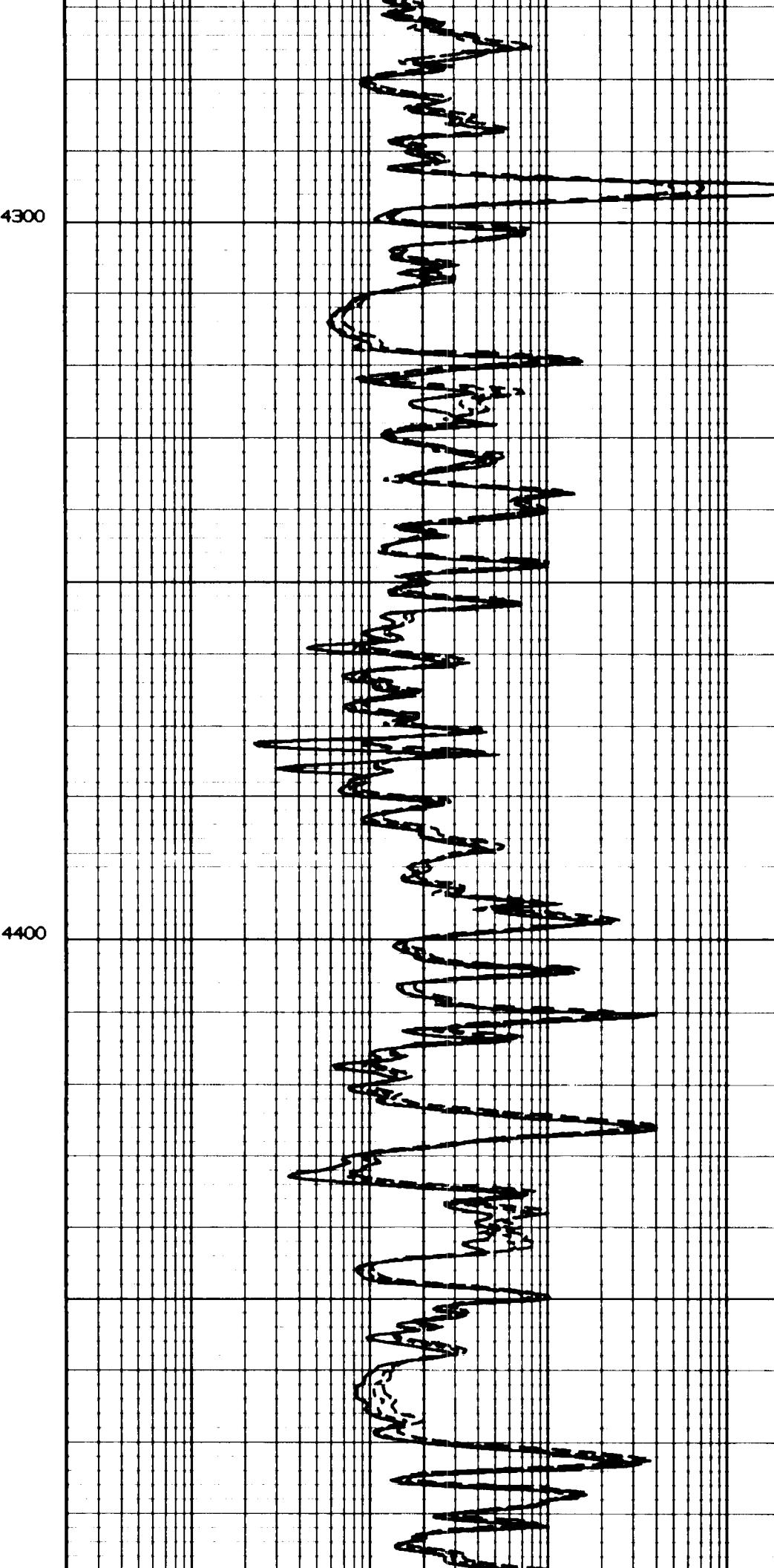
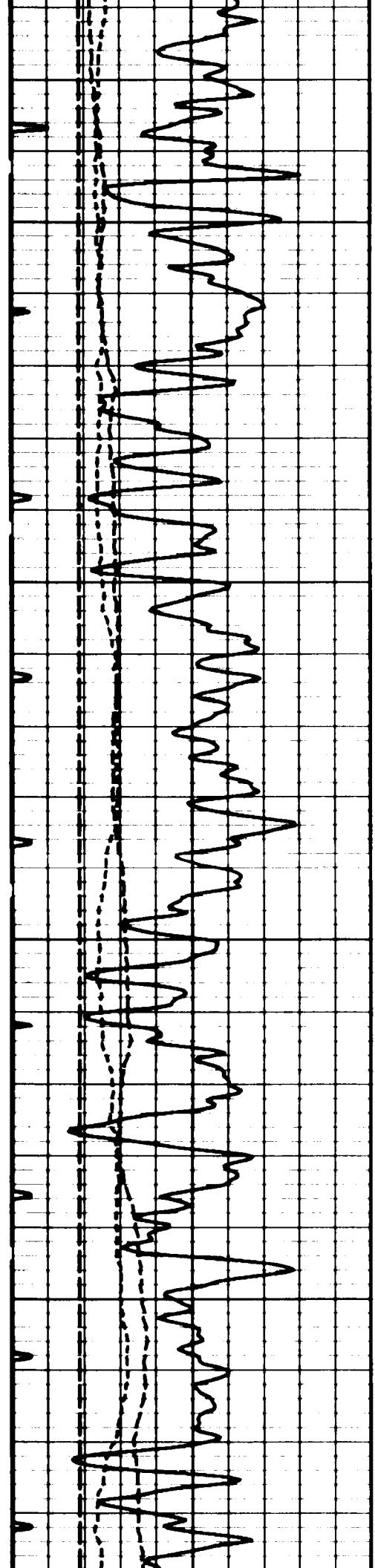




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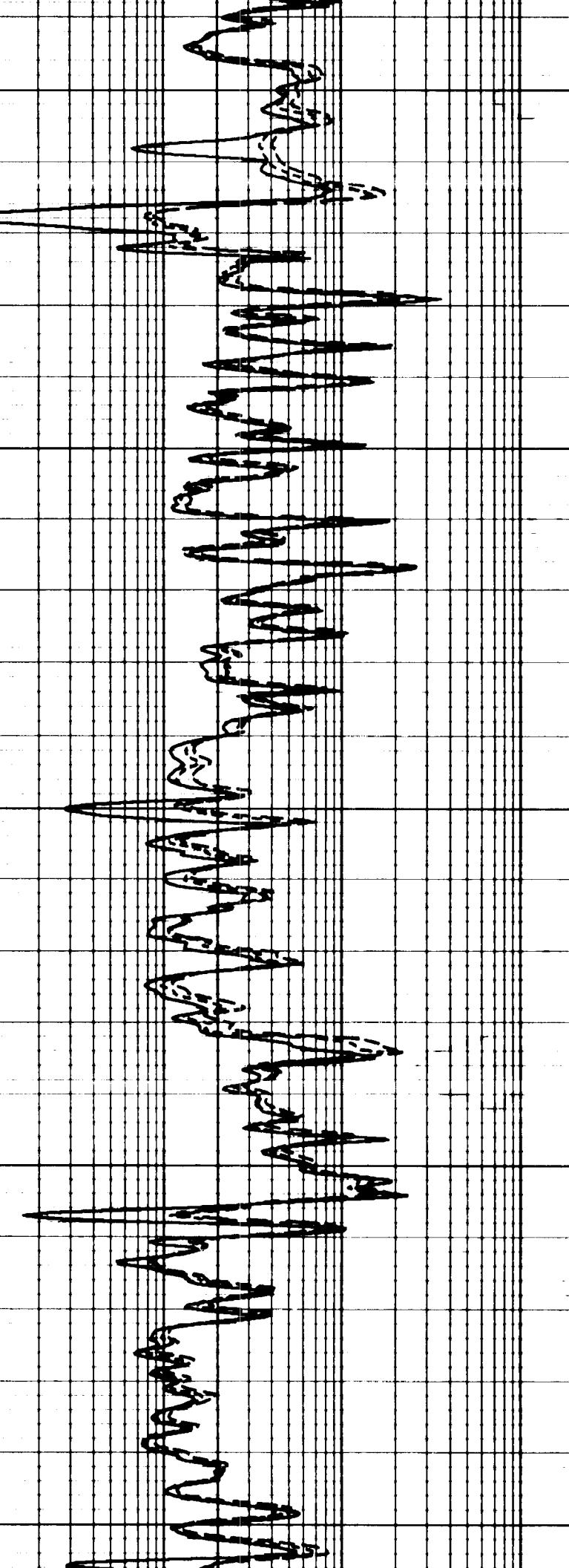
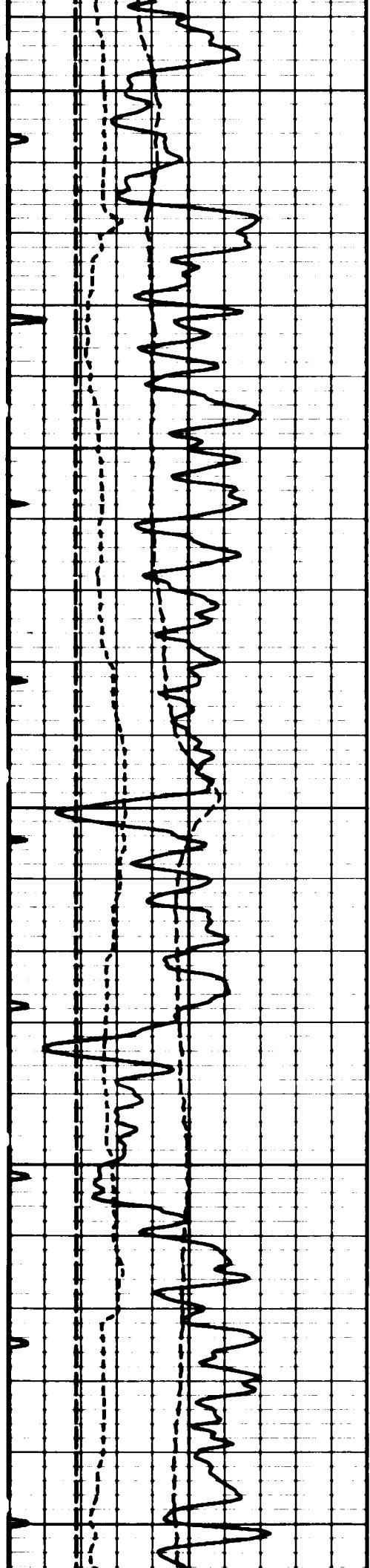


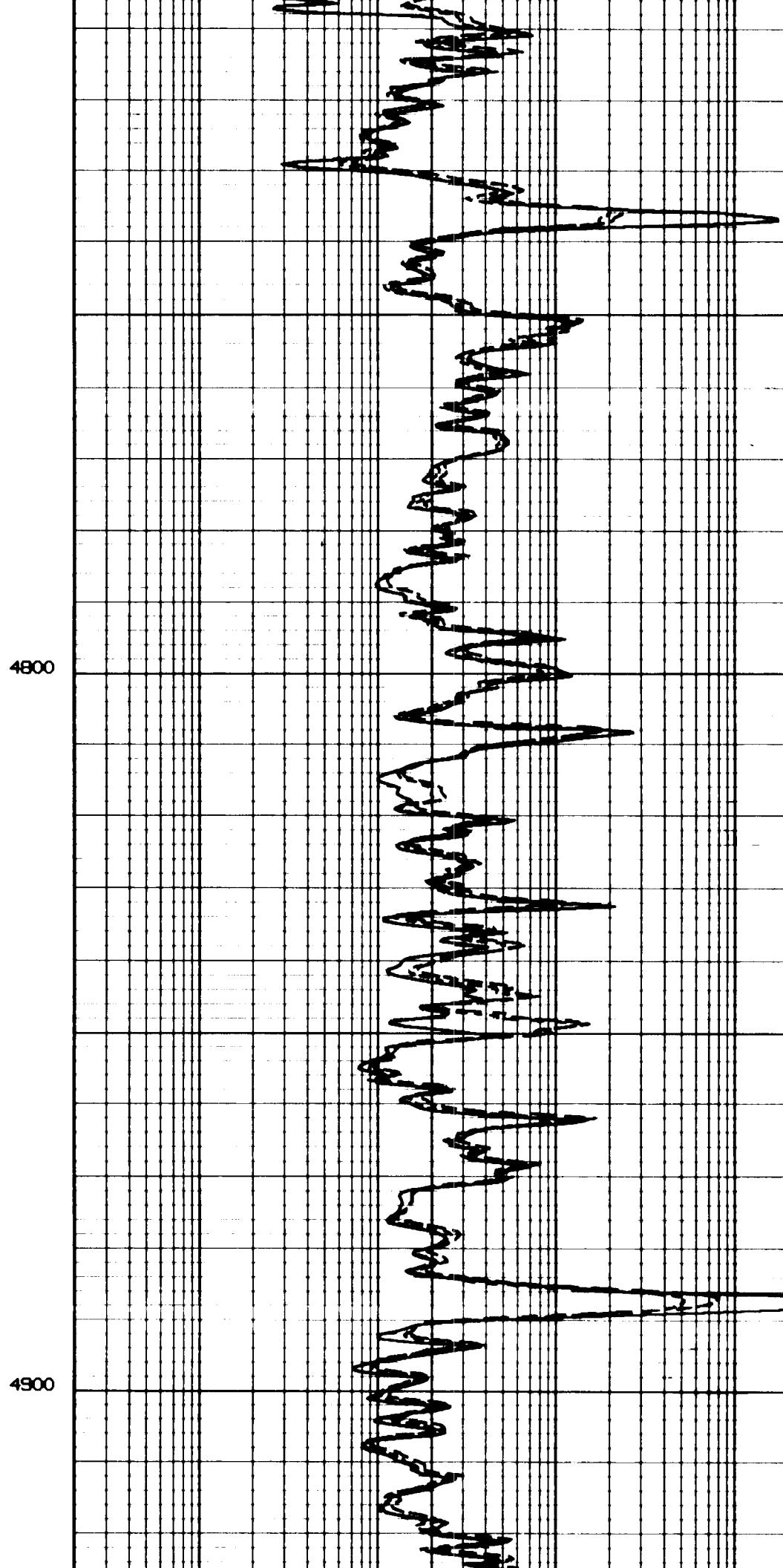
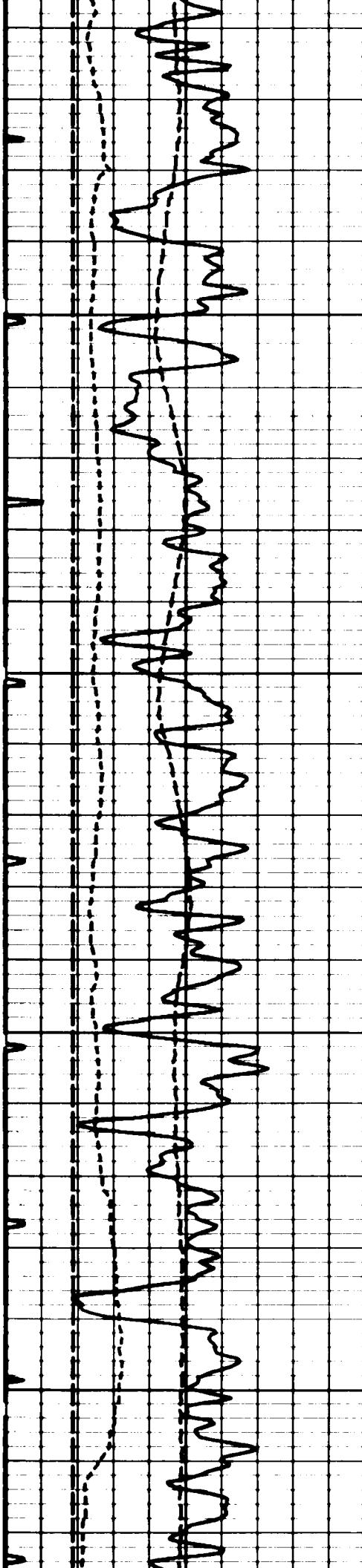


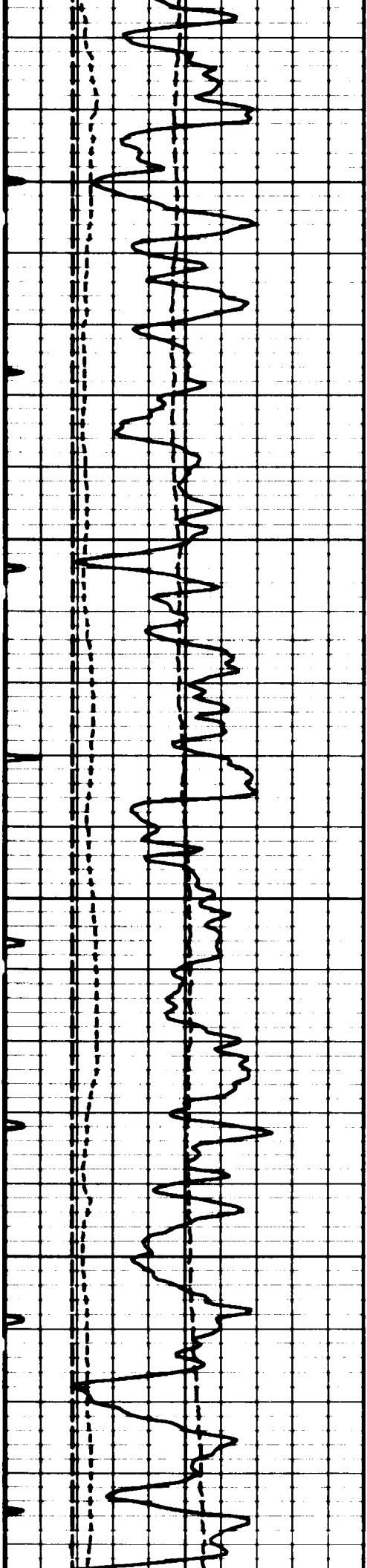
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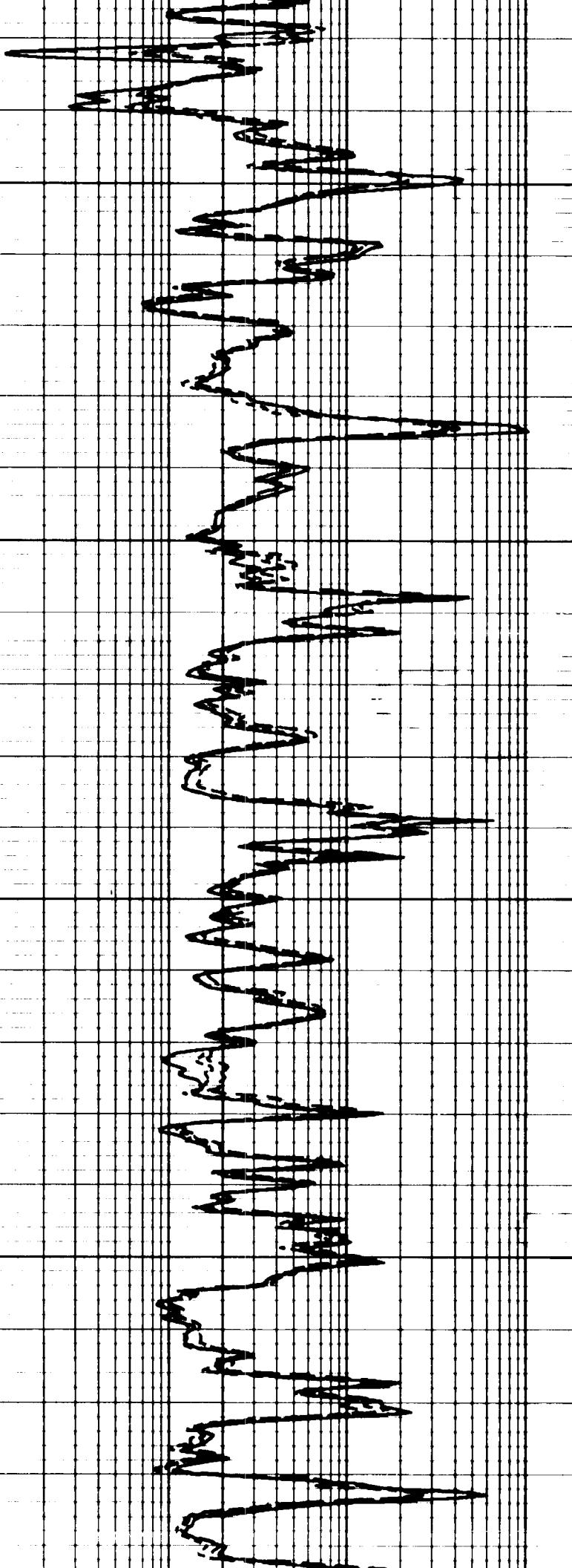


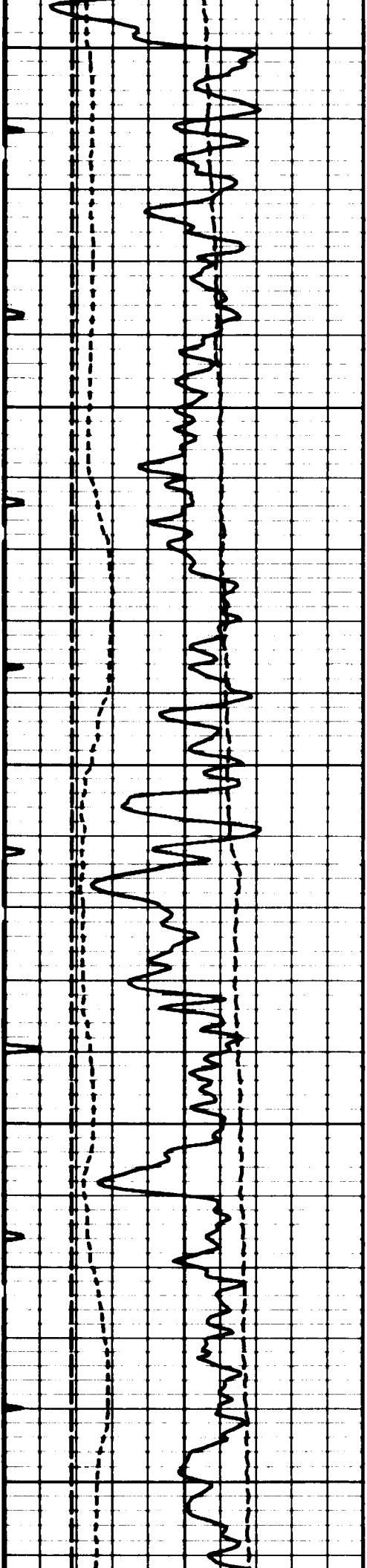




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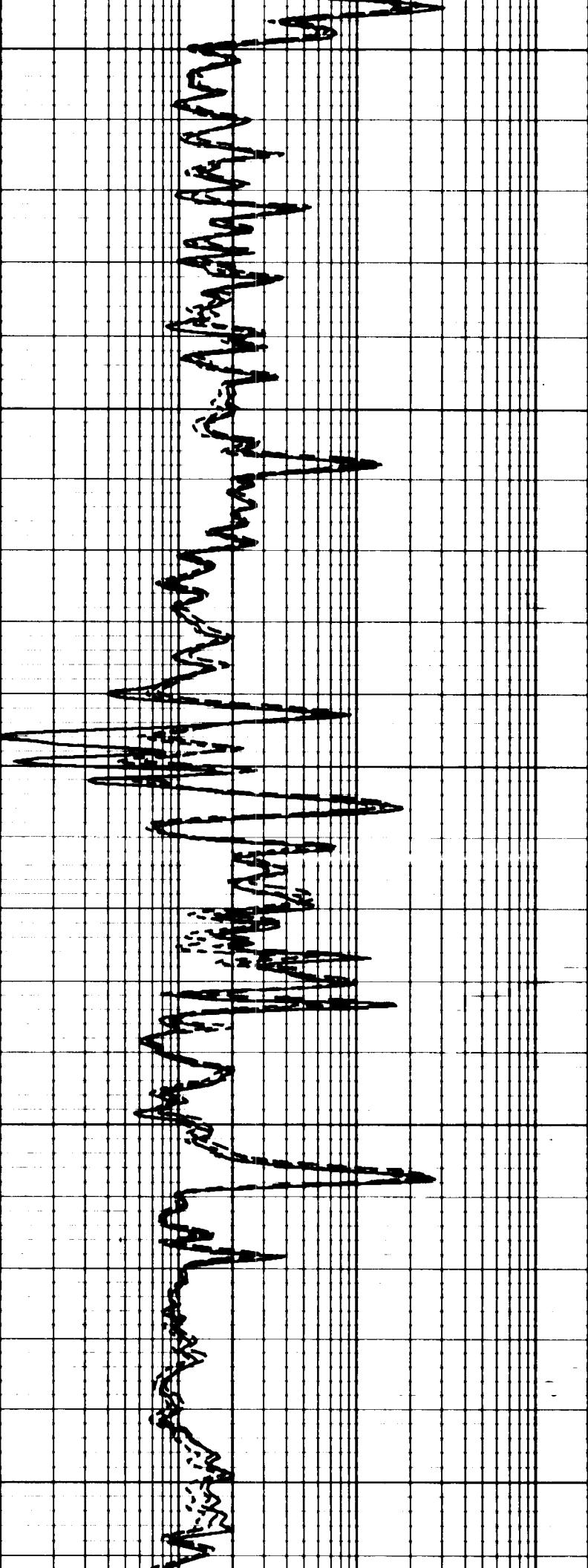
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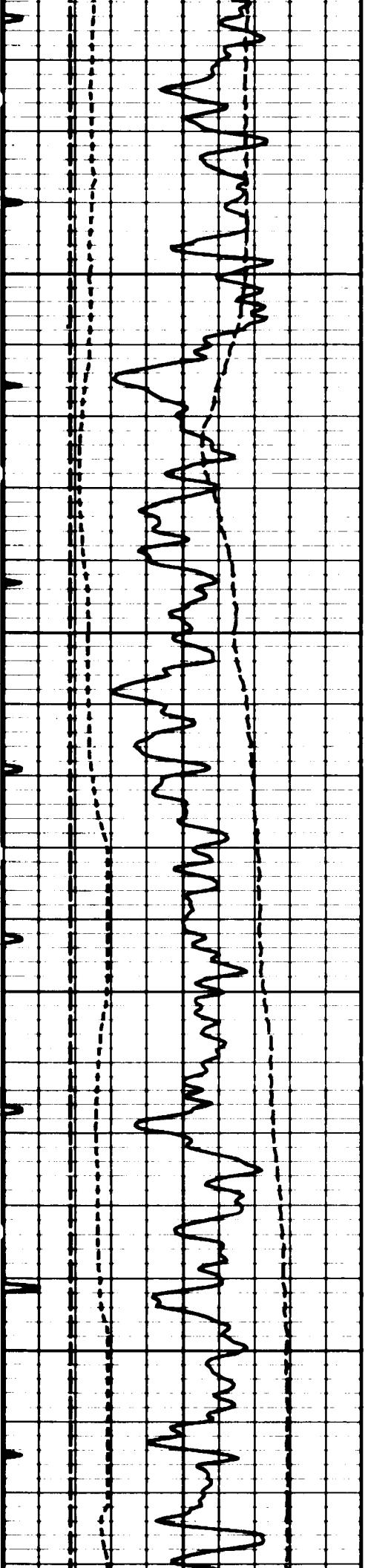




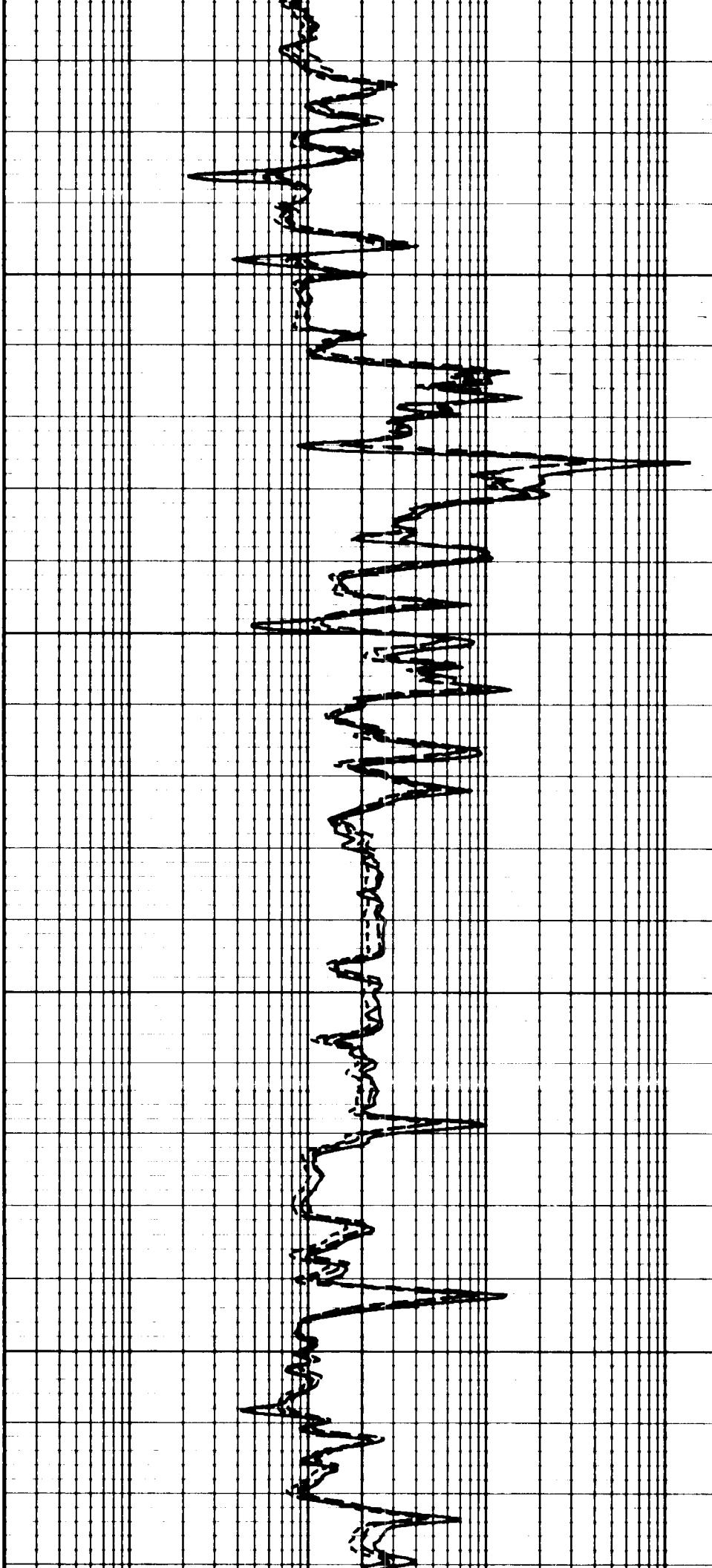
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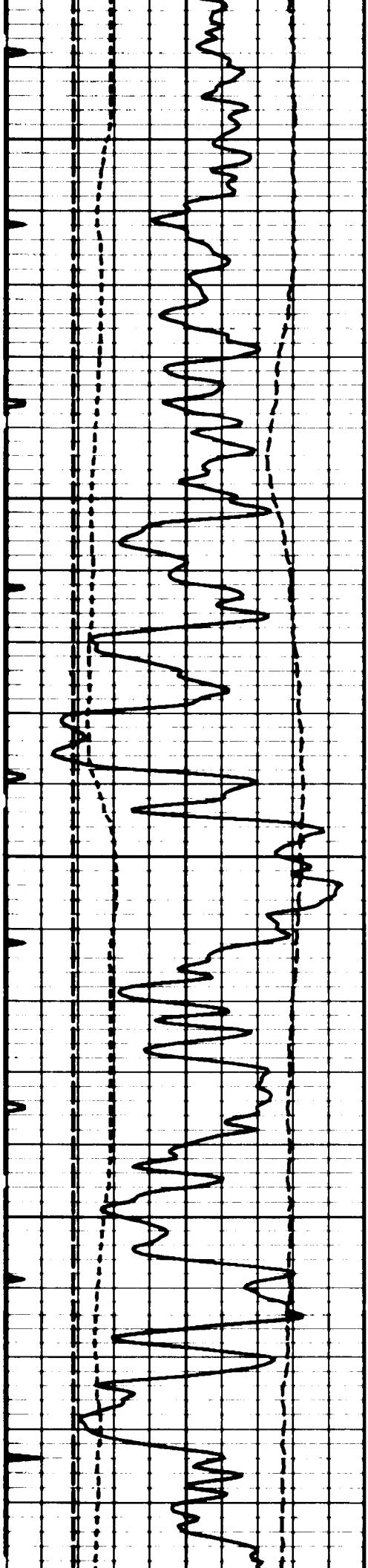




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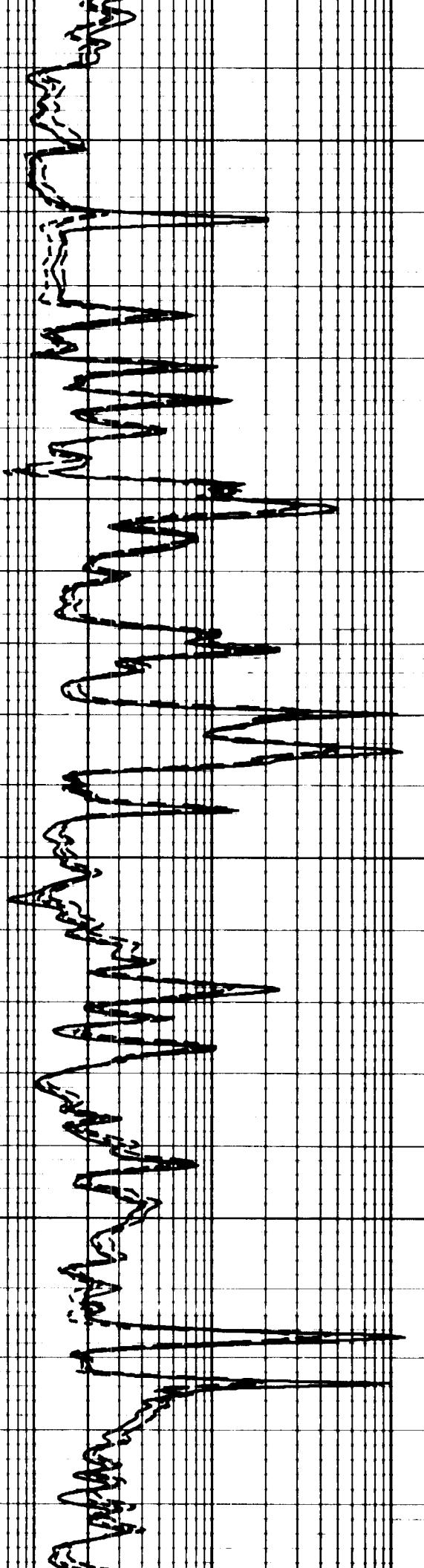


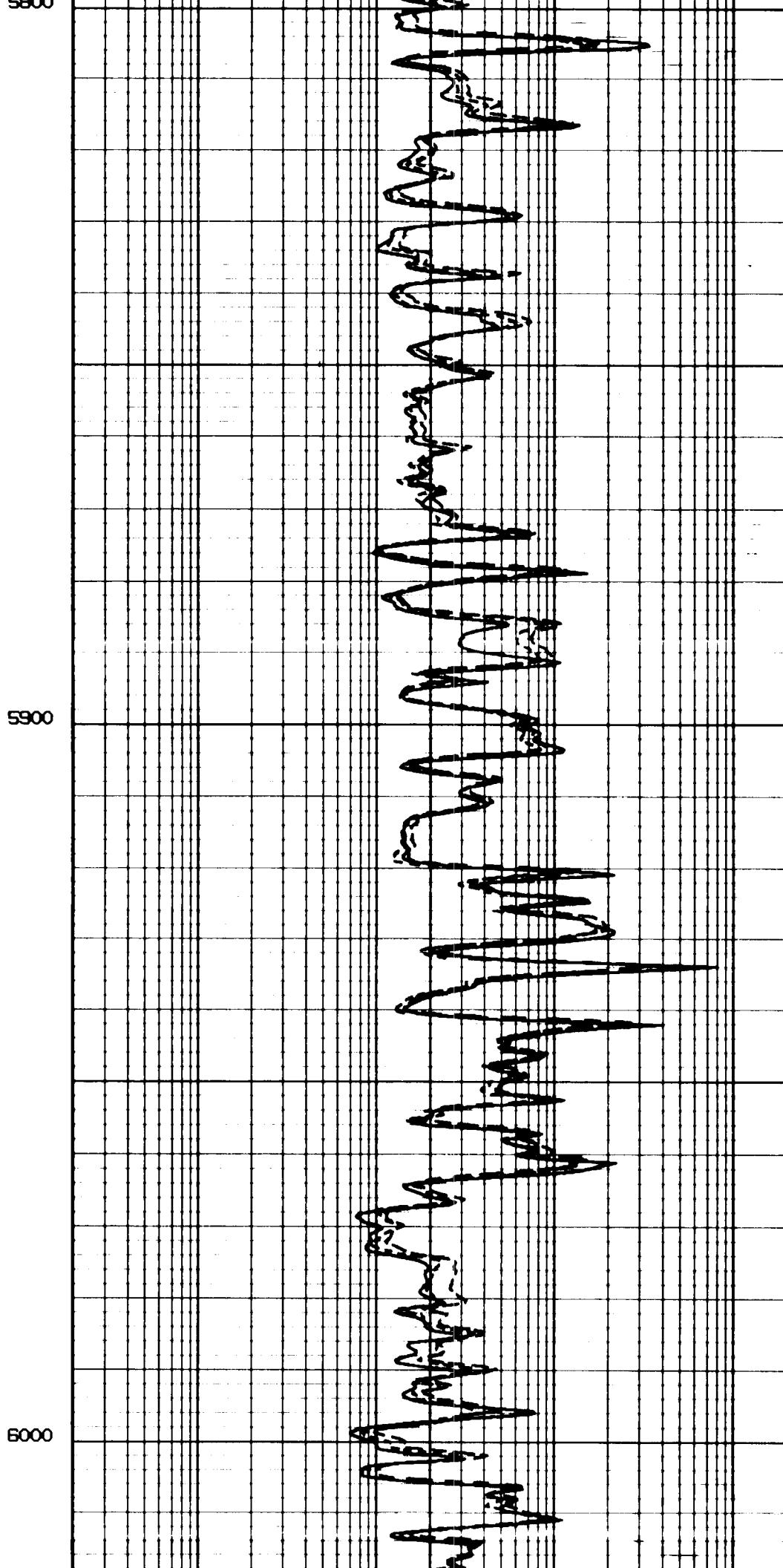
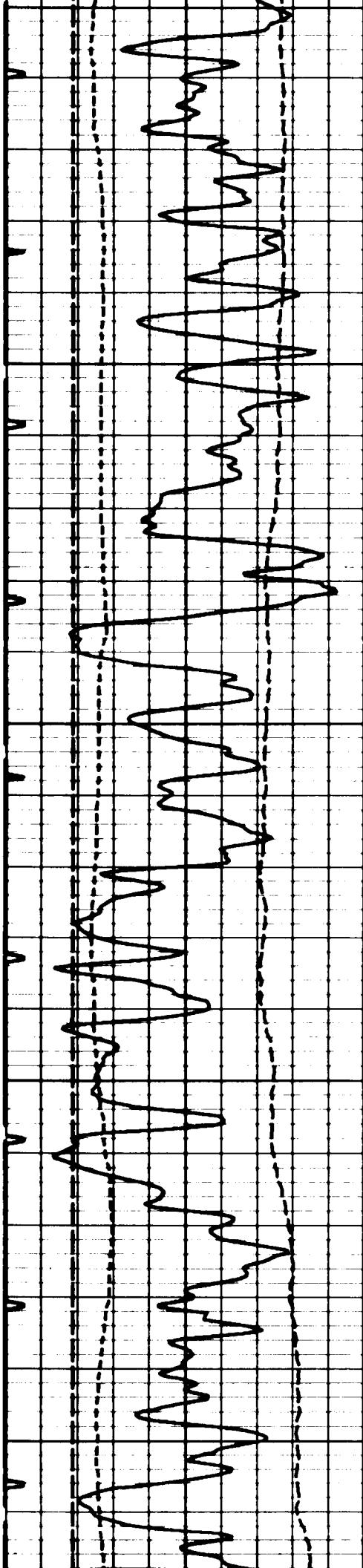
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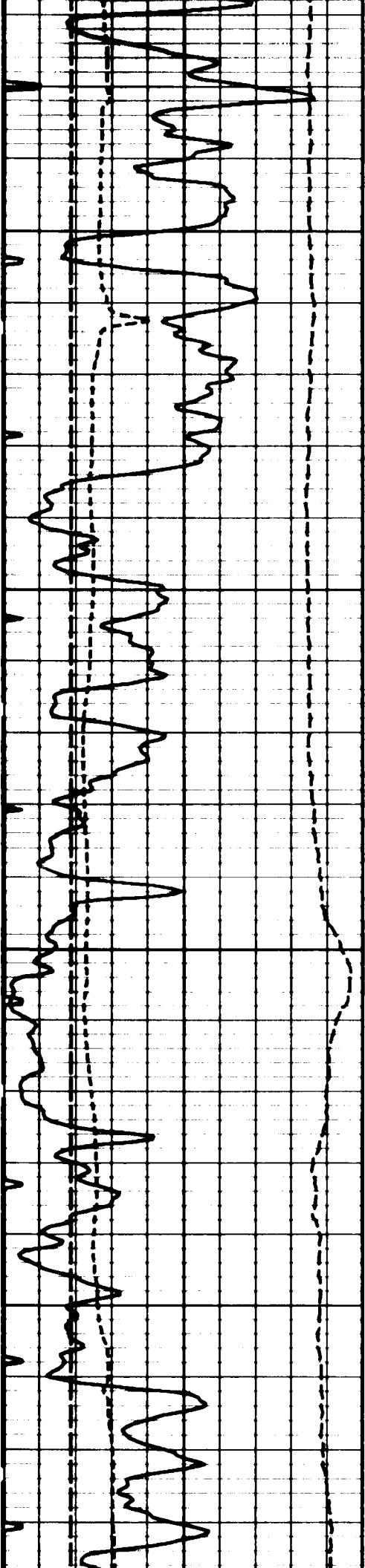


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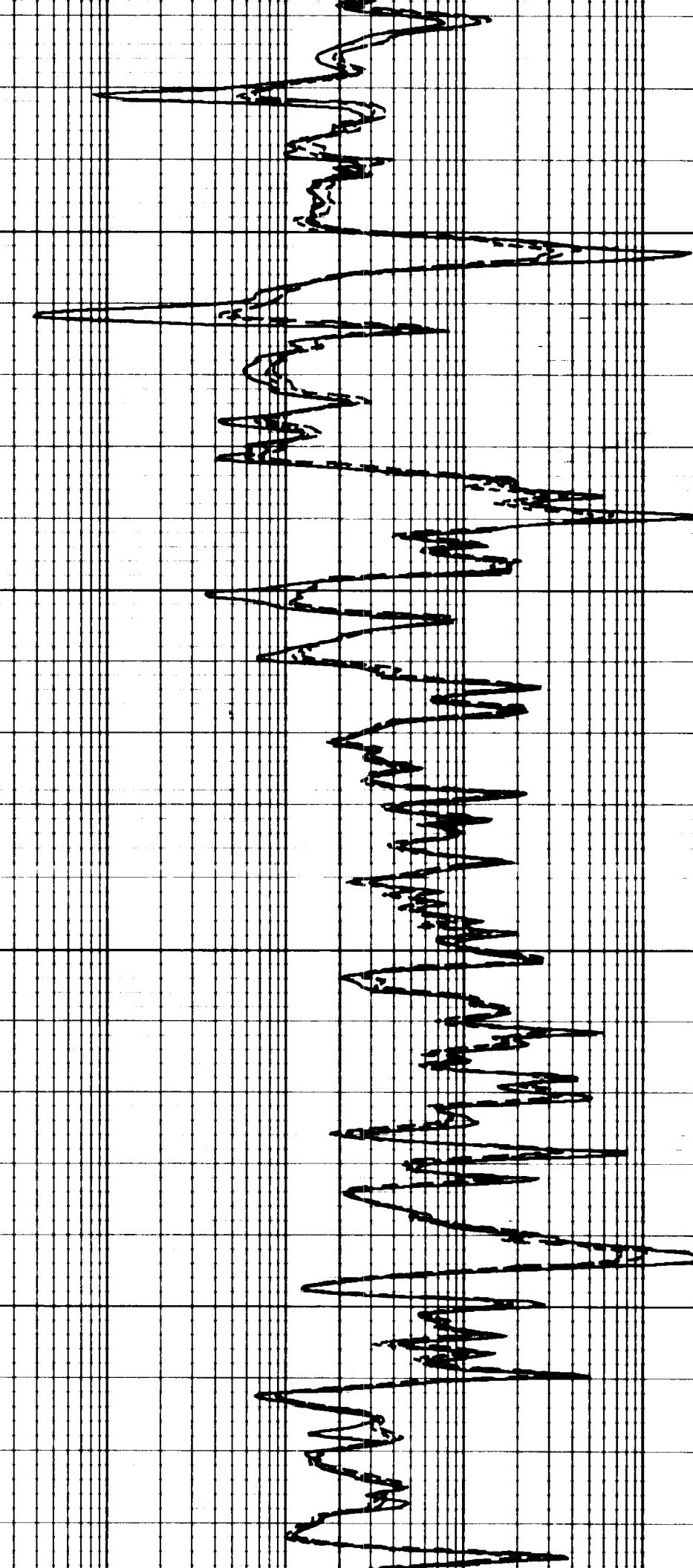


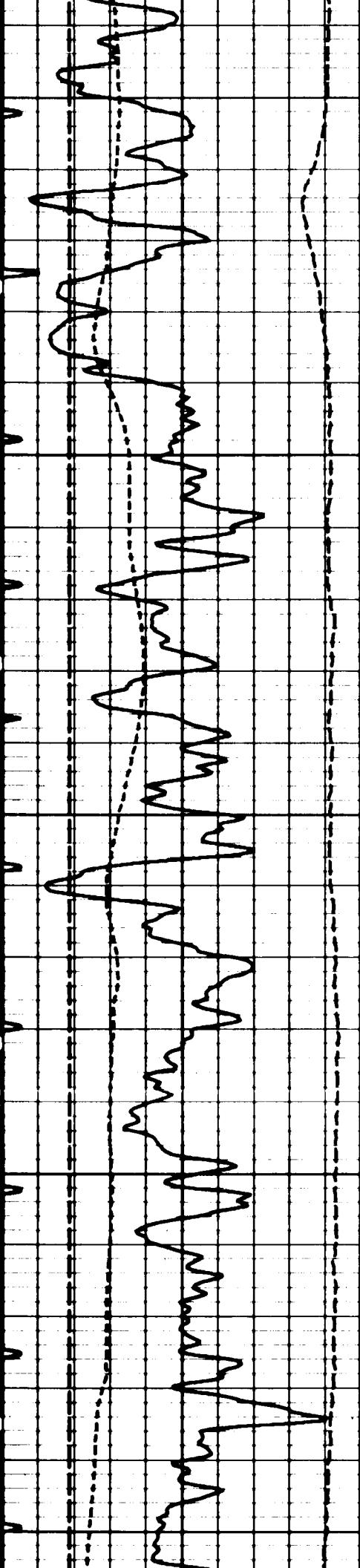




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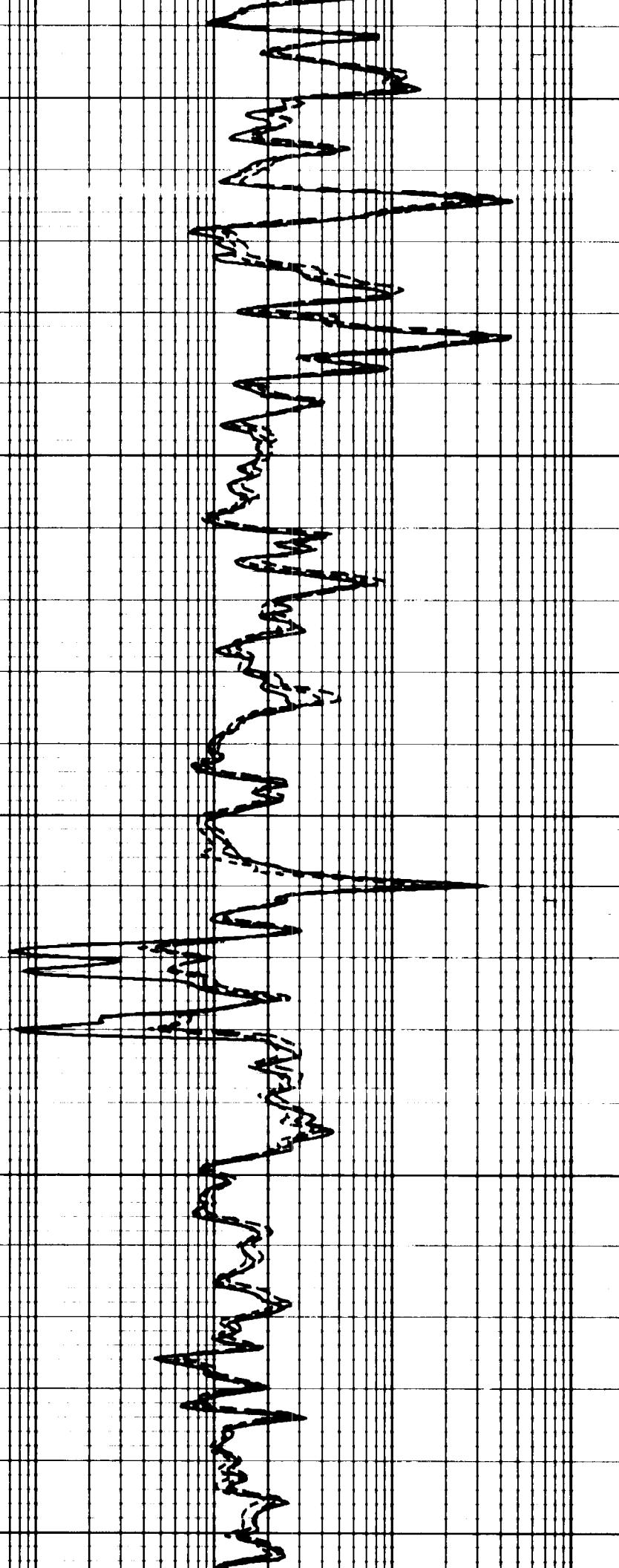
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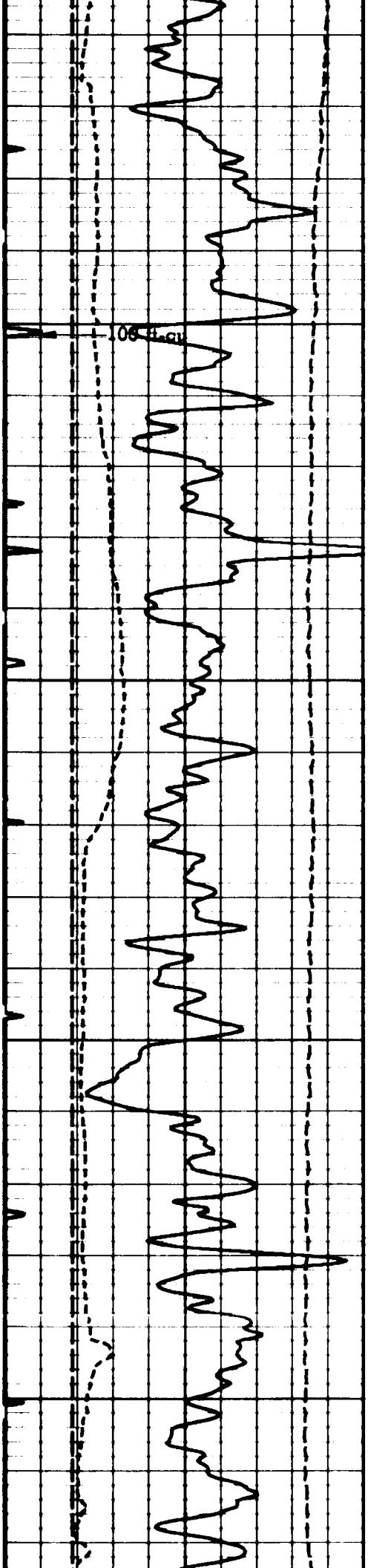




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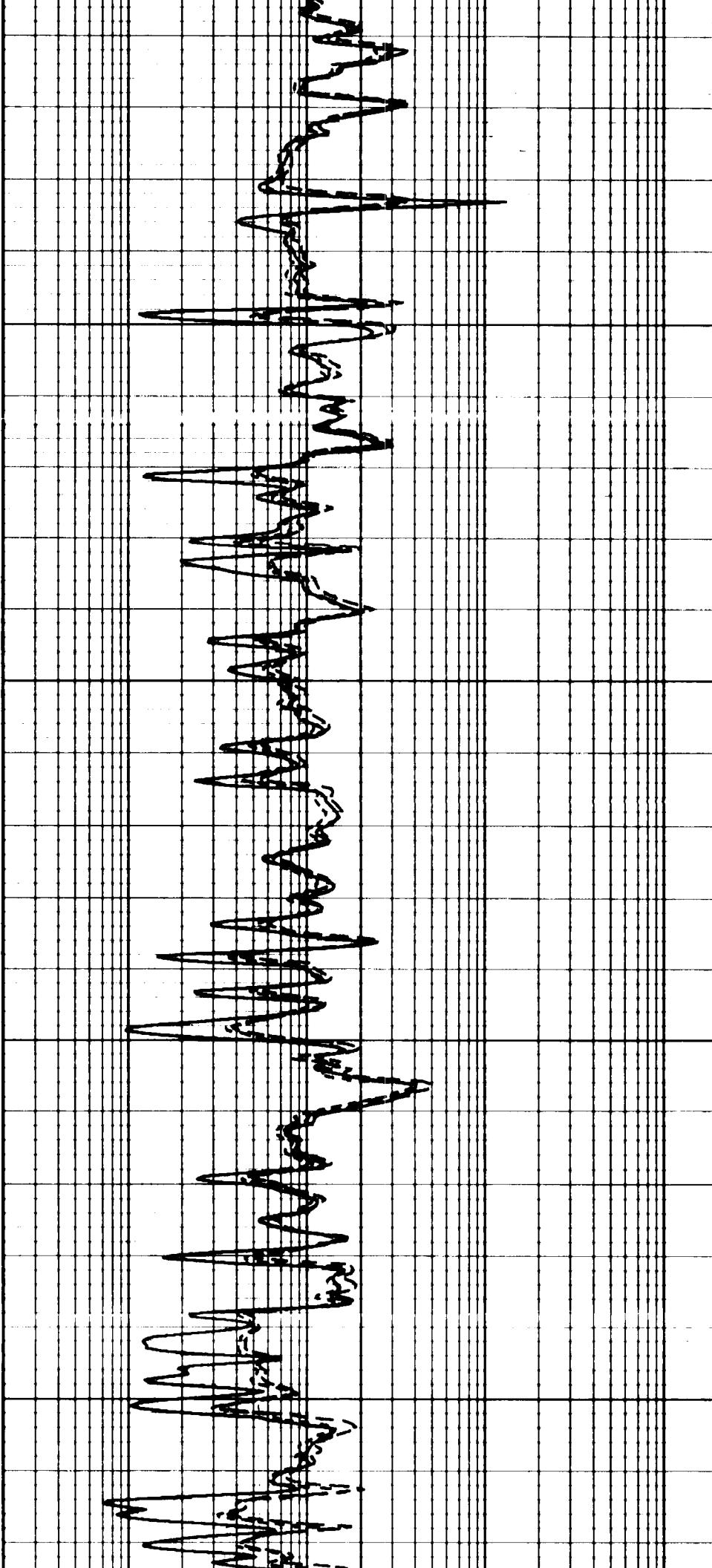
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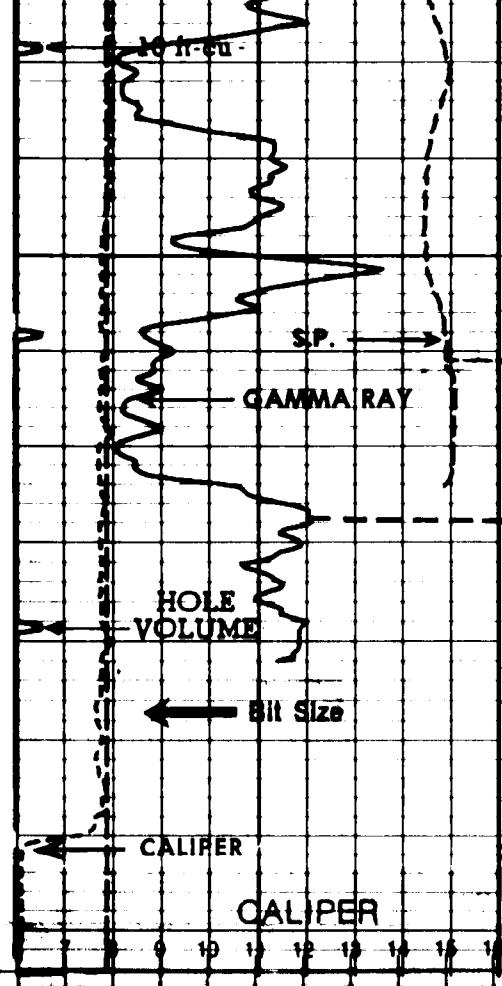




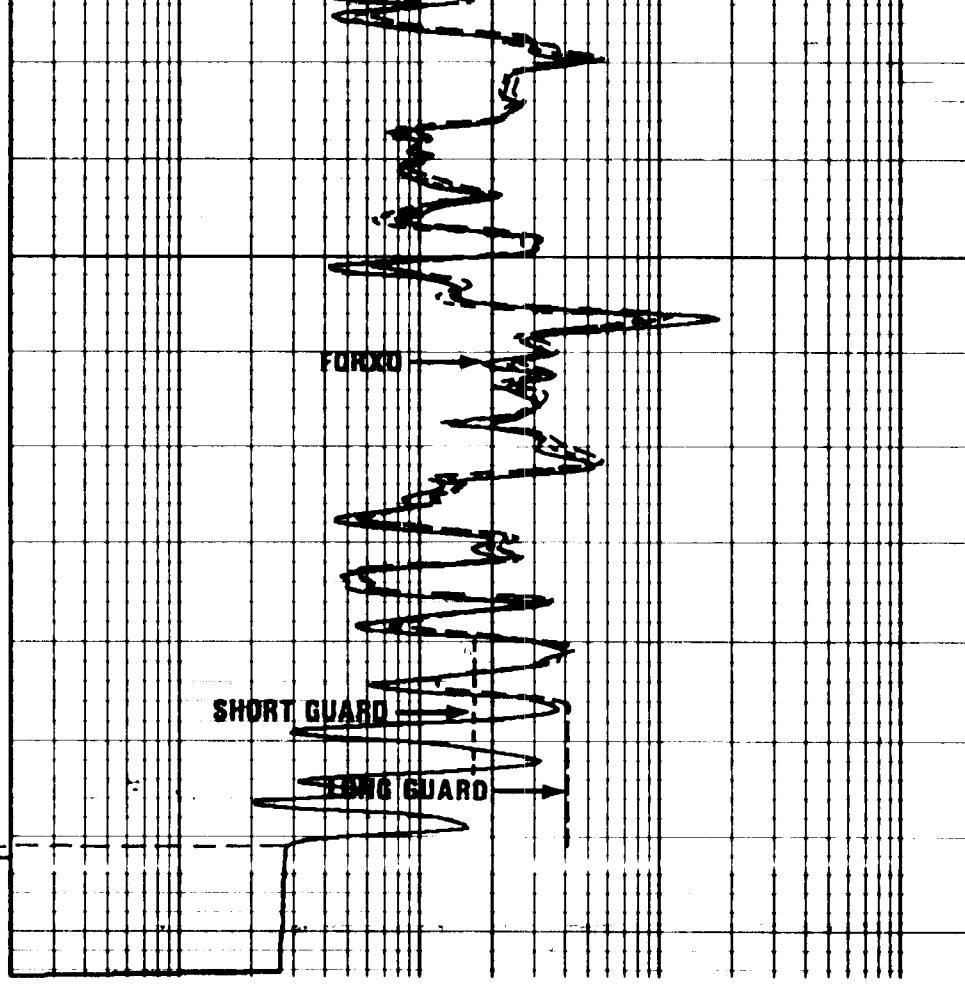
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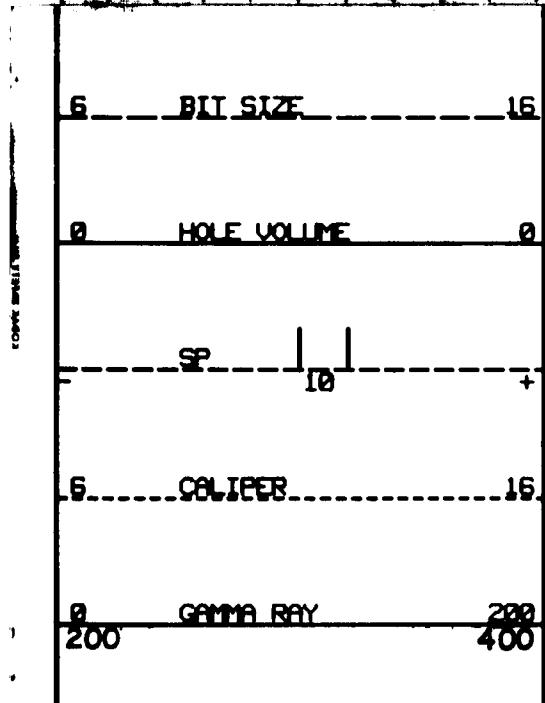




6700



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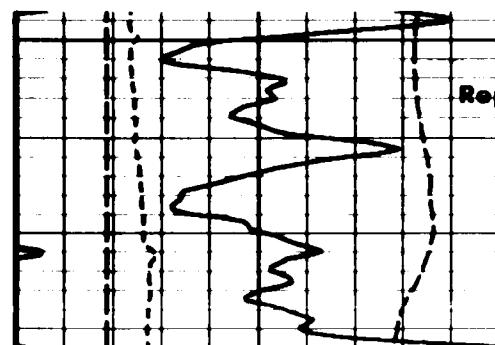
SHORT GUARD

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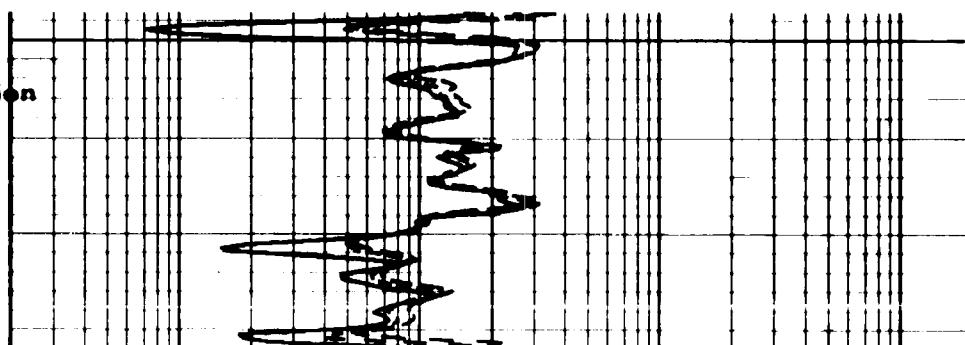
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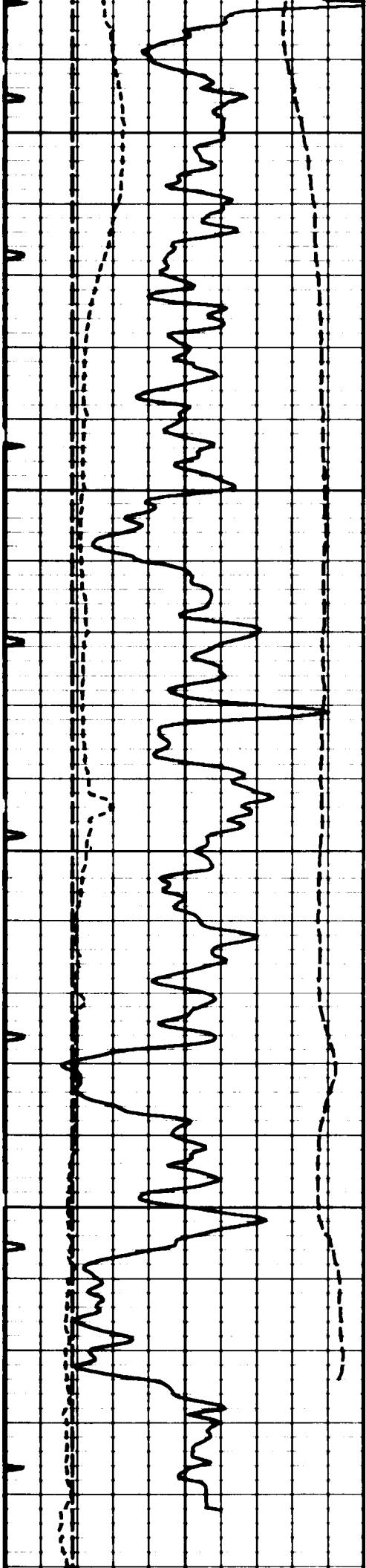
LONG GUARD

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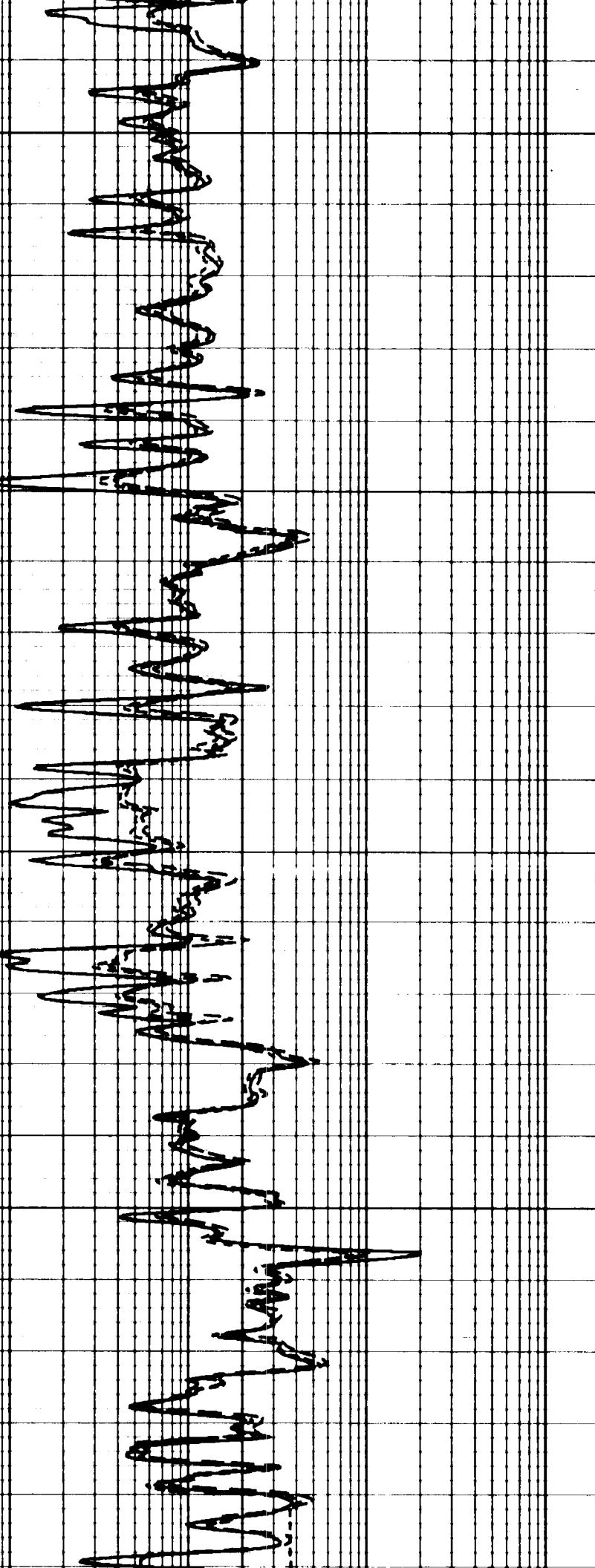
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WELEX DLSTM DUAL GUARD FORXO VERS 3.03 07/21/83

LOG TAPE ID 00121001

DATE 09/18/83

SUMMARY

TRACE SURVEY	GALVO	TRK	SCALE	DIGT	NORM OR MATRIX	INTOP	(NORM*) (INTOP*)	PLOTS		
	L	R	CHAN		OFFSET	T. C.	DELAY	C1VC2		
LOG L.G. *	1	4	0.2,2000	1	0.00203	4	0.002	11	14	MMN
LOG S.G. *	2	4	0.2,2000	2	0.0016	3	0.002	-6	21.5	FFN
LOG FORXO *	3	4	0.2,2000	3	0.00232	-4	0.0023	11	0	YYN
NORMAL	0	0	0.,20	4	0	0	0	0	0	NNN
LATERAL	0	0	0.,20	5	0	0	0	0	0	NNN
GAMMA	6	1	0.,200	6	0.02926	0	0	1	33	YYY
CALIPER	7	1	6.,16	7	0.00147	-1238	0	0	0	FFF
SP	8	1	0.,100	8	0	0	0	0	51	MMM
LIN L.G.	9	2	0.,100	9	0	0	0	0	0	NNN
LIN S.G.	10	2	0.,100	10	0	0	0	0	0	NNN
LIN FORXO	11	2	0.,100	11	0	0	0	1	0	NNN
NEUTRON	0	0	0.,4000	12	0	0	0	0	0	NNN
NEUTRON POR	0	0	30.,-10	0	LIME	0	0	0	0	NNN
B. H. VOL.	14	1	0.,0	14	0	0	0	0	0	YNN
BIT SIZE	15	1	6.,16	15	7.875	0	0	0	0	SSN
L. TENSION	16	1	4095.,0	16	1	0	0	0	0	NYN
LIN COND	12	4	400.,0	13	0	0	0	0	0	NNY

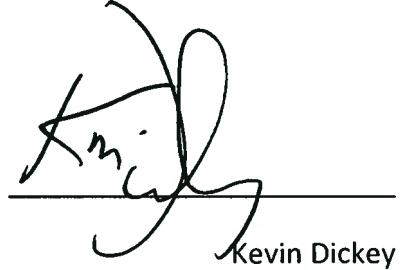
ATTACHMENT NO. 9

LIST OF OWNERS AND AFFIDAVIT NOTIFICATION

AFFIDAVIT OF MAILING

I, Kevin Dickey, Vice President, Operations, Petroglyph Energy, being first duly sworn, depose and state as follows: On July 24th, 2015, I caused to be mailed by certified mail, postage prepaid, return receipt requested, a copy of the Application to convert 1 well that appears on the attached sheet to water injection for enhanced recovery. It was sent to all parties who have an interest within ¼ mile radius from this well. The attached list contains the names of all parties who were notified.

Dated on this 24th day of July, 2015



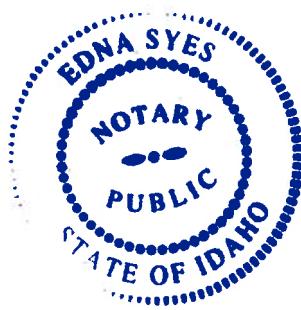
Kevin Dickey

Vice President, Operations

Petroglyph Energy

The forgoing affidavit was subscribed and sworn to before me by Kevin Dickey.

This 24 day of July, 2015.



Edna Syes
Notary Public

July 24th, 2015**Mineral, Surface, and Working Interest Owners**

To Whom It May Concern,

On July 24th, 2015 Petroglyph Energy Inc. submitted to the Environmental Protection Agency an application requesting approval to convert 19 wells to water injection wells in an enhanced recovery program. The well(s) which were submitted are all located in Antelope Creek Field which is operated under a Cooperative Plan of Development between the Ute Tribe and Petroglyph Energy.

Owners at Well's Location

Mineral: Ute Tribe

Operator: Petroglyph

Surface: Ute Tribe

Working Interest: Petroglyph 100%

Owners within Well's ¼ mile radius

No others

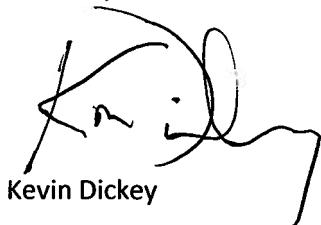
No others

No others

Anyone who would be directly and adversely affected by the authorization of the underground disposal into the Upper Green River formation may file a written request for a public hearing before the EPA. Logs and additional information on the subject wells are on file with the EPA, Groundwater Program, Mail Code 8P-W-UIC, 1595 Wynkoop St, Denver, Colorado 80202-1129.

Please contact Kevin Dickey at 208-685-7600 if you have any questions.

Sincerely,


Kevin Dickey

Vice President, Operations, Petroglyph Energy

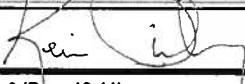
Enclosure

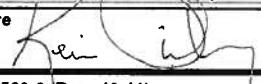
PETROGLYPH OPERATING COMPANY, INC.

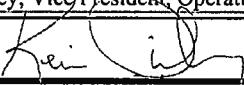
ANTELOPE CREEK FIELD

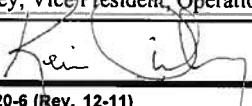
WELLS TO BE CONVERTED TO INJECTION

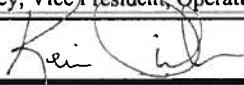
Well Name and Number	Footages	Section, Township, and Range
Ute Tribal 03-05	SHL: 2871' FNL & 752' FWL BHL: 2340' FNL & 684' FWL	3, T5S-R3W
Ute Tribal 03-12	2272' FSL & 575' FWL	3, T5S-R3W
Ute Tribal 08-11	2187' FSL 2011' FWL	8, T5S-R3W
Ute Tribal 08-12	2100' FSL & 515' FWL	8, T5S-R3W
Ute Tribal 09-01	770' FNL & 1059' FEL	9, T5S-R3W
Ute Tribal 09-04	585' FNL & 722' FWL	9, T5S-R3W
Ute Tribal 10-03	600' FNL & 1650' FWL	10, T5S-R3W
Ute Tribal 17-04	697' FNL & 636' FWL	17, T5S-R3W
Ute Tribal 17-05	1797' FNL & 620' FWL	17, T5S-R3W
Ute Tribal 17-12	2527' FSL & 612' FWL	17, T5S-R3W
Ute Tribal 20-06	2050' FNL & 1950' FWL	20, T5S-R3W
Ute Tribal 20-07	1980' FNL & 1980' FEL	20, T5S-R3W
Ute Tribal 20-11	1959' FSL & 2033' FWL	20, T5S-R3W
Ute Tribal 20-15	574' FSL & 1806' FEL	20, T5S-R3W
Ute Tribal 31-03	422' FNL & 2338' FWL	31, T5S-R3W
Ute Tribal 31-05	1980' FNL & 660' FWL	31, T5S-R3W
Ute Tribal 31-07	1976' FNL & 2168' FEL	31, T5S-R3W
Ute Tribal 31-12	1999' FSL & 748' FWL	31, T5S-R3W
Ute Tribal 36-08-E4	1796' FNL & 713' FEL	36, T5S-R4W

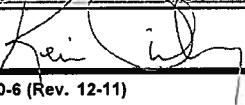
United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												
I. EPA ID Number <input type="text"/> U <input type="text"/> T/A <input type="text"/> C												
Read Attached Instructions Before Starting For Official Use Only												
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number		
<input type="text"/>			<input type="text"/>			<input type="text"/>		<input type="text"/>		<input type="text"/>		
II. Owner Name and Address						III. Operator Name and Address						
Owner Name <input type="text"/> Petroglyph Energy, Inc.						Owner Name <input type="text"/> Petroglyph Energy, Inc.						
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600		Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600		
City <input type="text"/> Boise			State <input type="text"/> ID		ZIP CODE <input type="text"/> 83707		City <input type="text"/> Boise			State <input type="text"/> ID		
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes			
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator			<input type="text"/>			
VIII. Well Status (Mark "x")												
<input checked="" type="checkbox"/> A Operating		Date Started mo day year <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion <input type="checkbox"/>			<input type="checkbox"/> C. Proposed				
IX. Type of Permit Requested (Mark "x" and specify if required)												
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek <input type="text"/> Ute Tribal 03-05			
X. Class and Type of Well (see reverse)												
A. Class(es) (enter code(s)) <input type="text"/> II		B. Type(s) (enter code(s)) <input type="text"/> R		C. If class is "other" or type is code 'x,' explain <input type="text"/>					D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R			
XI. Location of Well(s) or Approximate Center of Field or Project												
Latitude			Longitude			Township and Range						
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/> 3	Twp <input type="text"/> 5S	Range <input type="text"/> 3W	1/4 Sec <input type="text"/> NW	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>
XII. Indian Lands (Mark 'x') <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												
XIII. Attachments (Complete the following questions on a separate sheet(s) and number accordingly; see instructions) For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.												
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A. Name and Title (Type or Print) <input type="text"/> Kevin Dickey Vice President, Operations												
B. Phone No. (Area Code and No.) <input type="text"/> (208) 685-7600												
C. Signature 												
D. Date Signed <input type="text"/> 07/27/2015												

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number <input type="text"/> U <input type="text"/> T/A <input type="text"/> C					
Read Attached Instructions Before Starting For Official Use Only																	
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number					
<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>					
II. Owner Name and Address												III. Operator Name and Address					
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600		
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707		
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes								
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed									
		<input type="text"/>															
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 03-12							
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s)) <input type="text"/> II		B. Type(s) (enter code(s)) <input type="text"/> R		C. If class is "other" or type is code 'x,' explain <input type="text"/>						D. Number of wells per type (if area permit) 1 well, type R							
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')					
Latitude			Longitude			Township and Range									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Sec <input type="text"/> 3	Twp <input type="text"/> SS	Range <input type="text"/> 3W	1/4 Sec <input type="text"/> SW	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>				
XIII. Attachments (Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																	
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C. Signature 												D. Date Signed 07/27/2015					

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>														
I. EPA ID Number <input type="text"/> U <input type="text"/> T/A <input type="text"/> C														
Read Attached Instructions Before Starting For Official Use Only														
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number				
<input type="text"/>			<input type="text"/>			<input type="text"/>		<input type="text"/>		<input type="text"/>				
II. Owner Name and Address						III. Operator Name and Address								
Owner Name <input type="text"/> Petroglyph Energy, Inc.						Owner Name <input type="text"/> Petroglyph Energy, Inc.								
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600		Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600				
City <input type="text"/> Boise			State <input type="text"/> ID		ZIP CODE <input type="text"/> 83707		City <input type="text"/> Boise			State <input type="text"/> ID				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes					
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator			<input type="text"/>					
VIII. Well Status (Mark "x")														
<input checked="" type="checkbox"/> A <input type="checkbox"/> Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion <input type="checkbox"/>			<input type="checkbox"/> C. Proposed						
IX. Type of Permit Requested (Mark "x" and specify if required)														
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek <input type="text"/> Ute Tribal 08-11					
X. Class and Type of Well (see reverse)														
A. Class(es) (enter code(s)) <input type="text"/> II		B. Type(s) (enter code(s)) <input type="text"/> R		C. If class is "other" or type is code 'x,' explain <input type="text"/>					D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R					
XI. Location of Well(s) or Approximate Center of Field or Project														
Latitude			Longitude			Township and Range						XII. Indian Lands (Mark 'x')		
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Sec <input type="text"/> 8	Twp <input type="text"/> SS	Range <input type="text"/> 3W	1/4 Sec <input type="text"/> SW	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
XIII. Attachments														
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)														
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B. Phone No. (Area Code and No.) <input type="text"/> (208) 685-7600														
C. Signature 														
D. Date Signed <input type="text"/> 07/27/2015														

 <p>United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i></p>		I. EPA ID Number			
		U	T/A C		
Read Attached Instructions Before Starting For Official Use Only					
Application approved mo day year		Date received mo day year		Permit Number <input type="text"/>	Well ID <input type="text"/>
					FINDS Number <input type="text"/>
II. Owner Name and Address				III. Operator Name and Address	
Owner Name <input type="text"/> Petroglyph Energy, Inc.				Owner Name <input type="text"/> Petroglyph Energy, Inc.	
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number <input type="text"/> (208) 685-7600		Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019	
City <input type="text"/> Boise		State <input type="text"/> ID	ZIP CODE <input type="text"/> 83707	City <input type="text"/> Boise	
State <input type="text"/> ID				ZIP CODE <input type="text"/> 83707	
IV. Commercial Facility		V. Ownership		VI. Legal Contact	
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other		<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	
VII. SIC Codes					
<input checked="" type="checkbox"/> A. Date Started mo day year Operating					
<input checked="" type="checkbox"/> B. Modification/Conversion				<input type="checkbox"/> C. Proposed	
VIII. Well Status (Mark "x")					
<input checked="" type="checkbox"/> A. Individual		<input checked="" type="checkbox"/> B. Area		<input type="checkbox"/> C. Proposed	
<input type="checkbox"/> A. Individual		<input checked="" type="checkbox"/> B. Area		IX. Type of Permit Requested (Mark "x" and specify if required) Number of Existing Wells <input type="text"/> 111	
<input type="checkbox"/> A. Individual		<input checked="" type="checkbox"/> B. Area		Number of Proposed Wells <input type="text"/> 1	
<input type="checkbox"/> A. Individual		<input checked="" type="checkbox"/> B. Area		Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek Ute Tribal 08-12	
X. Class and Type of Well (see reverse)					
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain <input type="text"/>	
<input type="text"/> II		<input type="text"/> R		D. Number of wells per type (If area permit) <input type="text"/> 1 well, type R	
XI. Location of Well(s) or Approximate Center of Field or Project					
Latitude Deg <input type="text"/> Min <input type="text"/> Sec			Longitude Deg <input type="text"/> Min <input type="text"/> Sec		
Township and Range Sec <input type="text"/> Twp <input type="text"/> Range <input type="text"/> 8 SS 3W			1/4 Sec <input type="text"/> Feet From <input type="text"/> Line SW <input type="text"/> <input type="text"/>		
XII. Indian Lands (Mark 'x') <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
XIII. Attachments					
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.					
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A. Name and Title (Type or Print) <input type="text"/> Kevin Dickey, Vice President, Operations			B. Phone No. (Area Code and No.) <input type="text"/> (208) 685-7600		
C. Signature 			D. Date Signed <input type="text"/> 07/27/2015		

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>													
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number			Well ID		FINDS Number		
II. Owner Name and Address													
Owner Name Petroglyph Energy, Inc.						Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600			
City Boise		State ID		ZIP CODE 83707		City Boise		State ID		ZIP CODE 83707			
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes				
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator							
VIII. Well Status (Mark "x")													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed					
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 09-01				
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain					D. Number of wells per type (if area permit) 1 well, type R				
XI. Location of Well(s) or Approximate Center of Field or Project													
Latitude			Longitude			Township and Range						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Sec <input type="text"/>	Twp <input type="text"/>	Range <input type="text"/>	1/4 Sec <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>
XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i>													
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												T/A	C					
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Owner Name Petroglyph Energy, Inc.										Owner Name Petroglyph Energy, Inc.								
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707			
IV. Commercial Facility				V. Ownership				VI. Legal Contact				VII. SIC Codes						
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other				<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator										
VIII. Well Status (Mark "x")																		
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed										
IX. Type of Permit Requested (Mark "x" and specify if required)																		
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 09-04								
X. Class and Type of Well (see reverse)																		
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit) 1 well, type R								
II		R																
XI. Location of Well(s) or Approximate Center of Field or Project														XII. Indian Lands (Mark 'x')				
Latitude			Longitude			Township and Range										<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line					
						9	SS	3W	NW									
XIII. Attachments																		
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																		
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Kevin Dickey, Vice President, Operations										(208) 685-7600								
C. Signature										D. Date Signed								
										07/27/2015								



United States Environmental Protection Agency
**Underground Injection Control
 Permit Application**

(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number		
U	T/A	C

**Read Attached Instructions Before Starting
 For Official Use Only**

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address			III. Operator Name and Address		
Owner Name Petroglyph Energy, Inc.			Owner Name Petroglyph Energy, Inc.		
Street Address 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number (208) 685-7600	Street Address 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number (208) 685-7600
City Boise	State ID	ZIP CODE 83707	City Boise	State ID	ZIP CODE 83707
IV. Commercial Facility		V. Ownership		VI. Legal Contact	
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other		<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	
VII. SIC Codes					

VIII. Well Status (Mark "x")			
<input checked="" type="checkbox"/> A <input type="checkbox"/> B Operating	Date Started mo day year 111	<input checked="" type="checkbox"/> B. Modification/Conversion 1	<input type="checkbox"/> C. Proposed Antelope Creek Ute Tribal 10-03

IX. Type of Permit Requested (Mark "x" and specify if required)					
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area		Number of Existing Wells 111		Number of Proposed Wells 1	
Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 10-03					

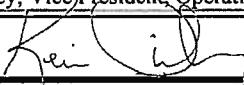
X. Class and Type of Well (see reverse)					
A. Class(es) (enter code(s)) II	B. Type(s) (enter code(s)) R	C. If class is "other" or type is code 'x,' explain 			D. Number of wells per type (if area permit) 1 well, type R

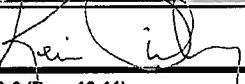
XI. Location of Well(s) or Approximate Center of Field or Project										XII. Indian Lands (Mark 'x')			
Latitude			Longitude			Township and Range							
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
						10	SS	3W	NW				

<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No

XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
---	--	--	--	--	--	--	--	--	--	--	--	--	--

XIV. Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) Kevin Dickey, Vice-President, Operations							B. Phone No. (Area Code and No.) (208) 685-7600						
C. Signature 							D. Date Signed 07/27/2015						

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>													
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number			
II. Owner Name and Address						III. Operator Name and Address							
Owner Name Petroglyph Energy, Inc.						Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600			
City Boise		State ID		ZIP CODE 83707		City Boise		State ID		ZIP CODE 83707			
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes				
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator							
VIII. Well Status (Mark "x")													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed					
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input type="checkbox"/> A. Individual			<input checked="" type="checkbox"/> B. Area		Number of Existing Wells 111		Number of Proposed Wells 1		Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 17-04				
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R					
XI. Location of Well(s) or Approximate Center of Field or Project													
Latitude			Longitude			Township and Range						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
						17	5S	3W	NW				
XII. Indian Lands (Mark 'x')													
XIII. Attachments													
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
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C. Signature 						D. Date Signed 07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number 					
												T/A	C				
												U					
Read Attached Instructions Before Starting For Official Use Only																	
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number					
II. Owner Name and Address												III. Operator Name and Address					
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600		
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707		
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes								
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed									
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 17-05							
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit) 1 well, type R							
II		R															
XI. Location of Well(s) or Approximate Center of Field or Project																	
Latitude			Longitude			Township and Range											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line				
						17	5S	3W	NW								
XII. Indian Lands (Mark 'x')																	
XIII. Attachments																	
(Complete the following questions on a separate sheet(s) and number accordingly; see Instructions)																	
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Kevin Dickey, Vice President, Operations												(208) 685-7600					
C. Signature												D. Date Signed					
												07/27/2015					



United States Environmental Protection Agency
**Underground Injection Control
 Permit Application**
(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number

T/A	C
U	

**Read Attached Instructions Before Starting
 For Official Use Only**

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address**III. Operator Name and Address**

Owner Name
 Petroglyph Energy, Inc.

Owner Name
 Petroglyph Energy, Inc.

Street Address
 960 Broadway Ave. Suite 500 PO Box 70019

Phone Number
 (208) 685-7600

Street Address
 960 Broadway Ave. Suite 500 PO Box 70019

Phone Number
 (208) 685-7600

City
 Boise

State
 ID

ZIP CODE
 83707

City
 Boise

State
 ID

ZIP CODE
 83707

IV. Commercial Facility**V. Ownership****VI. Legal Contact****VII. SIC Codes**

Yes
 No

Private
 Federal
 Other

Owner
 Operator

--	--	--

VIII. Well Status (Mark "x")

A
 Operating

Date Started
mo day year

B. Modification/Conversion

C. Proposed

A. Individual

B. Area

Number of Existing Wells

111

Number of Proposed Wells

1

Name(s) of field(s) or project(s)

Antelope Creek
 Ute Tribal 17-12

X. Class and Type of Well (see reverse)

A. Class(es)
 (enter code(s))

B. Type(s)
 (enter code(s))

C. If class is "other" or type is code 'x,' explain

D. Number of wells per type (if area permit)

1 well, type R

II

R

XI. Location of Well(s) or Approximate Center of Field or Project**XII. Indian Lands (Mark 'x')**

Latitude			Longitude			Township and Range									
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line	Yes	
						17	5S	3W	SW					No	

XIII. Attachments

(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)

For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.

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A. Name and Title (Type or Print)

Kevin Dickey, Vice President, Operations

B. Phone No. (Area Code and No.)

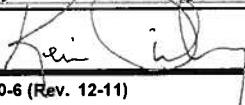
(208) 685-7600

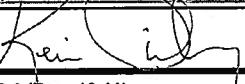
C. Signature

D. Date Signed

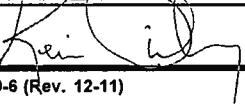
07/27/2015

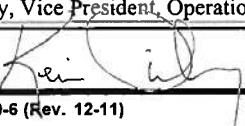
United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number <input type="text"/> U <input type="text"/> <input type="checkbox"/> T/A <input type="checkbox"/> C																																													
Read Attached Instructions Before Starting For Official Use Only																																																									
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City <input type="text"/> Boise			State <input type="text"/> ID		ZIP CODE <input type="text"/> 83707		City <input type="text"/> Boise			State <input type="text"/> ID		ZIP CODE <input type="text"/> 83707																																													
IV. Commercial Facility <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			V. Ownership <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			VI. Legal Contact <input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator			VII. SIC Codes <input type="text"/>																																																
VIII. Well Status (Mark "x") <input checked="" type="checkbox"/> A Date Started mo day year Operating <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed																																																			
IX. Type of Permit Requested (Mark "x" and specify if required) <input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area <input type="text"/> Number of Existing Wells <input type="text"/> 111 <input type="text"/> Number of Proposed Wells <input type="text"/> 1 <input type="text"/> Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek <input type="text"/> Ute Tribal 20-06																																																									
X. Class and Type of Well (see reverse) A. Class(es) (enter code(s)) <input type="text"/> II			B. Type(s) (enter code(s)) <input checked="" type="checkbox"/> R			C. If class is "other" or type is code 'x,' explain <input type="text"/>			D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R																																																
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Latitude			Longitude			Township and Range																																																			
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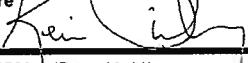
United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U		T/A	C				
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IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes										
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VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual			<input checked="" type="checkbox"/> B. Area			Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-07							
X. Class and Type of Well (see reverse)																			
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II		R																	
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Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line						
			20	55			3W	NE											
XII. Indian Lands (Mark 'x')																			
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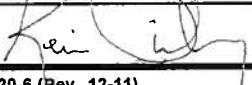
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City Boise		State ID		ZIP CODE 83707		City Boise		State ID		ZIP CODE 83707				
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IX. Type of Permit Requested (Mark "x" and specify if required)														
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-11					
X. Class and Type of Well (see reverse)														
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R						
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Latitude			Longitude			Township and Range							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line	
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XII. Indian Lands (Mark 'x')														
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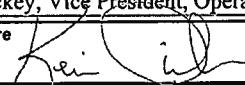
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Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600	
City Boise			State ID	ZIP CODE 83707		City Boise			State ID	ZIP CODE 83707	
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes		
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator					
VIII. Well Status (Mark "x")											
<input checked="" type="checkbox"/> A <small>Operating</small>		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed			
IX. Type of Permit Requested (Mark "x" and specify if required)											
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111		Number of Proposed Wells 1		Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-15			
X. Class and Type of Well (see reverse)											
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R			
XI. Location of Well(s) or Approximate Center of Field or Project											
Latitude			Longitude			Township and Range					
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line
						20	SS	3W	SE		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
XIII. Attachments											
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.											
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A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations						B. Phone No. (Area Code and No.) (208) 685-7600					
C. Signature 						D. Date Signed 07/27/2015					

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U <input type="text"/> T/A <input type="checkbox"/> C <input type="checkbox"/>							
Read Attached Instructions Before Starting For Official Use Only																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>							
II. Owner Name and Address												III. Operator Name and Address							
Owner Name <input type="text"/> Petroglyph Energy, Inc.												Owner Name <input type="text"/> Petroglyph Energy, Inc.							
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number <input type="text"/> (208) 685-7600			Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number <input type="text"/> (208) 685-7600				
City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707			City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes										
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator													
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A Operating		Date Started mo day year <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual				<input checked="" type="checkbox"/> B. Area		Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek <input type="text"/> Ute Tribal 31-03							
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s)) <input type="text"/> II		B. Type(s) (enter code(s)) <input type="text"/> R		C. If class is "other" or type is code 'x,' explain <input type="text"/>						D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R									
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')							
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Sec <input type="text"/> 31	Twp <input type="text"/> SS	Range <input type="text"/> 3W	1/4 Sec <input type="text"/> NW	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>						
XIII. Attachments																			
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																			
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																			
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C. Signature 												D. Date Signed <input type="text"/> 07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U T/A C							
<i>Read Attached Instructions Before Starting For Official Use Only</i>																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
II. Owner Name and Address												III. Operator Name and Address							
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600				
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707				
IV. Commercial Facility				V. Ownership				VI. Legal Contact				VII. SIC Codes							
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other				<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A Operating			Date Started mo day year <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed										
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 31-05									
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s))			B. Type(s) (enter code(s))			C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit)							
<input type="checkbox"/> II			<input type="checkbox"/> R									1 well, type R							
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')							
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line						
						31	5S	3W	NW										
XIII. Attachments																			
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A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)							
Kevin Dickey, Vice President, Operations												<input type="text"/> (208) 685-7600							
C. Signature												D. Date Signed							
												<input type="text"/> 07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U		T/A	C				
Read Attached Instructions Before Starting For Official Use Only																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>							
II. Owner Name and Address												III. Operator Name and Address							
Owner Name <input type="text"/> Petroglyph Energy, Inc.												Owner Name <input type="text"/> Petroglyph Energy, Inc.							
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number <input type="text"/> (208) 685-7600			Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number <input type="text"/> (208) 685-7600				
City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707			City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707				
IV. Commercial Facility				V. Ownership				VI. Legal Contact				VII. SIC Codes							
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other				<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator				<input type="text"/>							
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A <small>Operating</small>		Date Started mo day year <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion 			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek Ute Tribal 31-07									
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain <input type="text"/>								D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R							
<input type="text"/> II		<input type="text"/> R																	
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')							
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line	Feet From	Line				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> 31	<input type="text"/> SS	<input type="text"/> 3W	<input type="text"/> NE	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
XIII. Attachments																			
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A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)							
<input type="text"/> Kevin Dickey, Vice President, Operations												<input type="text"/> (208) 685-7600							
C. Signature												D. Date Signed							
												<input type="text"/> 07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U	T/A	C			
<i>Read Attached Instructions Before Starting For Official Use Only</i>																	
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number					
II. Owner Name and Address												III. Operator Name and Address					
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600		
City Boise			State ID		ZIP CODE 83707		City Boise			State ID		ZIP CODE 83707					
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes								
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed									
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 31-12							
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain					D. Number of wells per type (if area permit) 1 well, type R								
II		R															
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')					
Latitude			Longitude			Township and Range									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line				
						31	5S	3W	SW								
XIII. Attachments																	
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Kevin Dickey, Vice President, Operations												(208) 685-7600					
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												07/27/2015					

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												T/A	C			
												U				
Read Attached Instructions Before Starting For Official Use Only																
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II. Owner Name and Address										III. Operator Name and Address						
Owner Name Petroglyph Energy, Inc.										Owner Name Petroglyph Energy, Inc.						
Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600				
City Boise			State ID		ZIP CODE 83707		City Boise			State ID		ZIP CODE 83707				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes							
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator										
VIII. Well Status (Mark "x")																
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed								
IX. Type of Permit Requested (Mark "x" and specify if required)																
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 36-08-E4						
X. Class and Type of Well (see reverse)																
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit) 1 well, type R						
II		R														
XI. Location of Well(s) or Approximate Center of Field or Project																
Latitude			Longitude			Township and Range										<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line			
						36	5S	4W	NE							
XII. Indian Lands (Mark 'x')																
XIII. Attachments																
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																
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A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations																
B. Phone No. (Area Code and No.) (208) 685-7600																
C. Signature 																
D. Date Signed 07/27/2015																

ATTACHMENT NO. 10

WELL BORE DIAGRAMS FOR THE UIC WELL

Ute Tribal 09-01 Well History

Well History:

Spud Well: 8/28/1983
 Completed: 10/26/1983
 First Production: 10/26/1983

Tops (KB):

BMSW* Found at 1018'

Green River 1461'

A Marker 4108'

X Marker 4598'

Douglas Creek 4750'

B Limestone 5149'

Castle Peak 5652'

Basal Carbonate 6082'

Perf History

9/25/1983

WSTC	6681' to 6685'
WSTC	6708' to 6720'
WSTC	6740' to 6743'
BP	at 6750'

10/8/1983

E04.2	5885' to 5890'	F5	6191' to 6194'
E07	6019' to 6022'	F6	6206' to 6210'
BSCARB	6096' to 6100'	F7	6246' to 6249'
F3	6145' to 6148'	H03	6330' to 6333'
F3	6154' to 6156'	BP	at 6500'

10/28/2010

B06	4293' to 4296'	C06	4942' to 4946'
B06	4322' to 4326'	C06	4948' to 4952'
B08.1	4436' to 4442	C06	4957' to 4960'
B10	4496' to 4505'	C08.1	5007' to 5010'
B10	4510' to 4514'	C08.2	5038' to 5041'
C01	4638' to 4653'	C09.2	5095' to 5098'
C03.1	4702' to 4704'	D9	5575' to 5581'
C05.2	4847' to 4849'	E01.2	5746' to 5750'
C05.3	4885' to 4888'	E02.1	5775' to 5781'
		BP	at 5875'

Petroglyph Operating Co., Inc

Ute Tribal #09-01

(770' FNL & 1059' FEL)

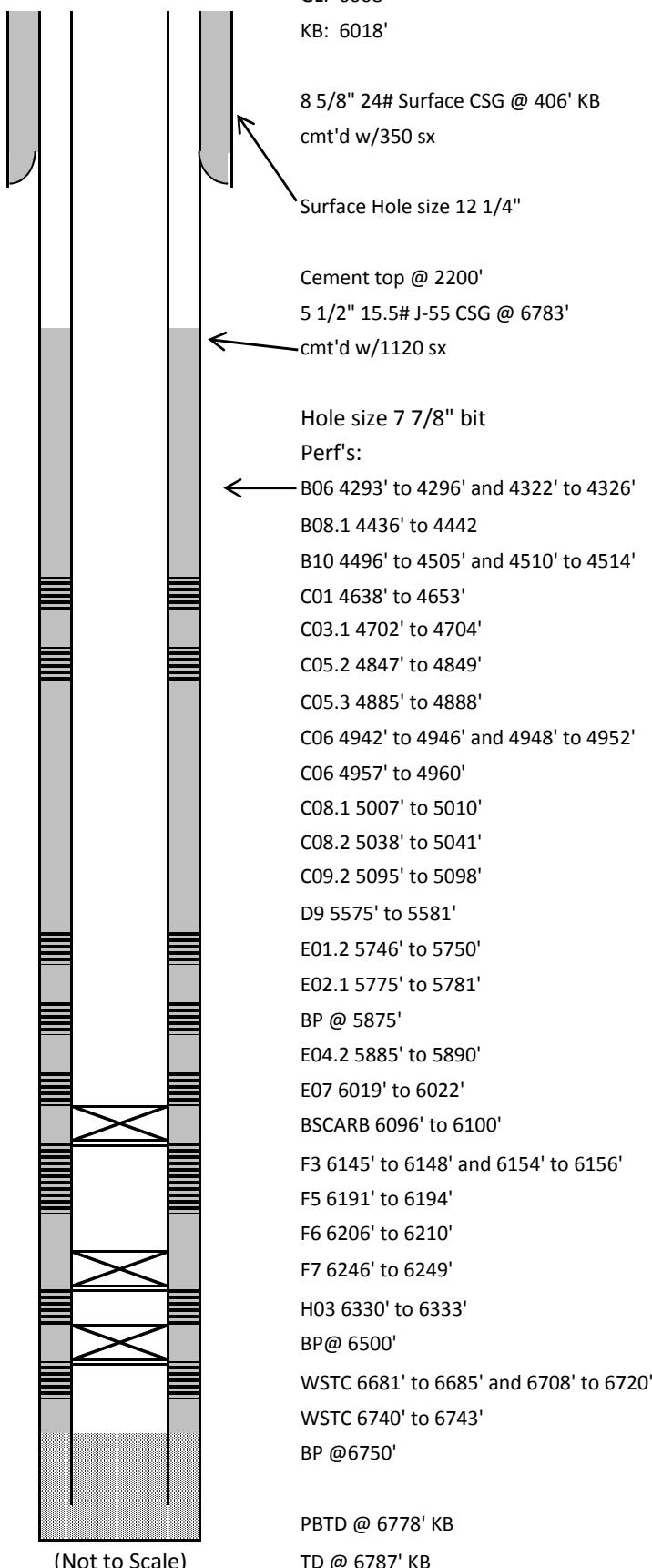
NE NE Section 9, 5S- 3W

Antelope Creek Field

Duchesne Co. Utah

API#: 43013307890000

*Plate 1 Utah Geological Survey Special Study 144.
 (2012). BMSW Elevation Contour Map, Uinta Basin,
 Utah. [map]. (CA 1:200,000)



Ute Tribal 09-01 Injection

Well History:

Spud Well: 8/28/1983
 Completed: 10/26/1983
 First Production: 10/26/1983

Tops (KB):

BMSW* Found at 1018'

Green River 1461'

A Marker 4108'

X Marker 4598'

Douglas Creek 4750'

B Limestone 5149'

Castle Peak 5652'

Basal Carbonate 6082'

Injection packer @ 4203'

BP @ 5875'

BP@ 6500'

BP @ 6750'

Petroglyph Operating Co., Inc.

Ute Tribal #09-01

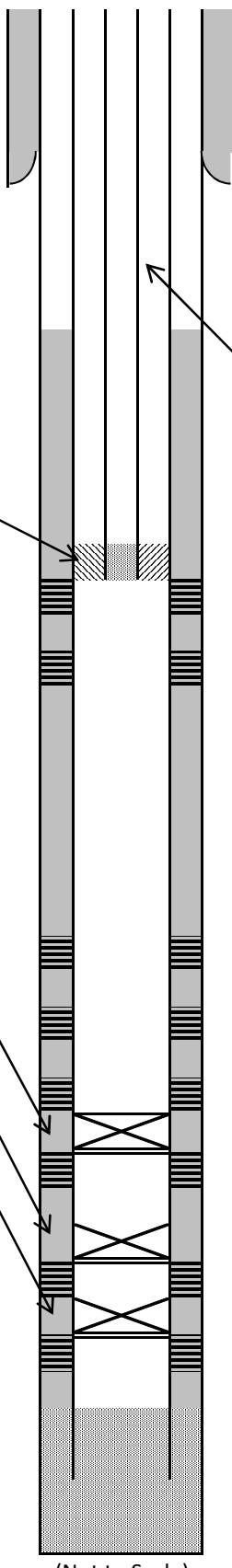
(770' FNL & 1059' FEL)

NE NE Section 9, 5S- 3W

Antelope Creek Field

Duchesne Co. Utah

API#: 43013307890000



GL: 6008'

KB: 6018'

8 5/8" 24# Surface CSG @ 406' KB

cmt'd w/350 sx

Surface Hole size 12 1/4"

Cement top @ 2200'

5 1/2" 15.5# J-55 CSG @ 6783'

cmt'd w/1120 sx

Hole size 7 7/8" bit

Perf's:

B06 4293' to 4296' and 4322' to 4326'

B08.1 4436' to 4442

B10 4496' to 4505' and 4510' to 4514'

C01 4638' to 4653'

C03.1 4702' to 4704'

C05.2 4847' to 4849'

C05.3 4885' to 4888'

Add C06 4929' to 4931'

C06 4942' to 4946' and 4948' to 4952'

C06 4957' to 4960'

C08.1 5007' to 5010'

C08.2 5038' to 5041'

C09.2 5095' to 5098'

Add D3 5241' to 5243'

Add D3 5264' to 5268' and 5278' to 5280'

D9 5575' to 5581'

E01.2 5746' to 5750'

E02.1 5775' to 5781'

E04.2 5885' to 5890'

E07 6019' to 6022'

BSCARB 6096' to 6100'

F3 6145' to 6148' and 6154' to 6156'

F5 6191' to 6194'

F6 6206' to 6210'

F7 6246' to 6249'

H03 6330' to 6333'

WSTC 6681' to 6685' and 6708' to 6720'

WSTC 6740' to 6743'

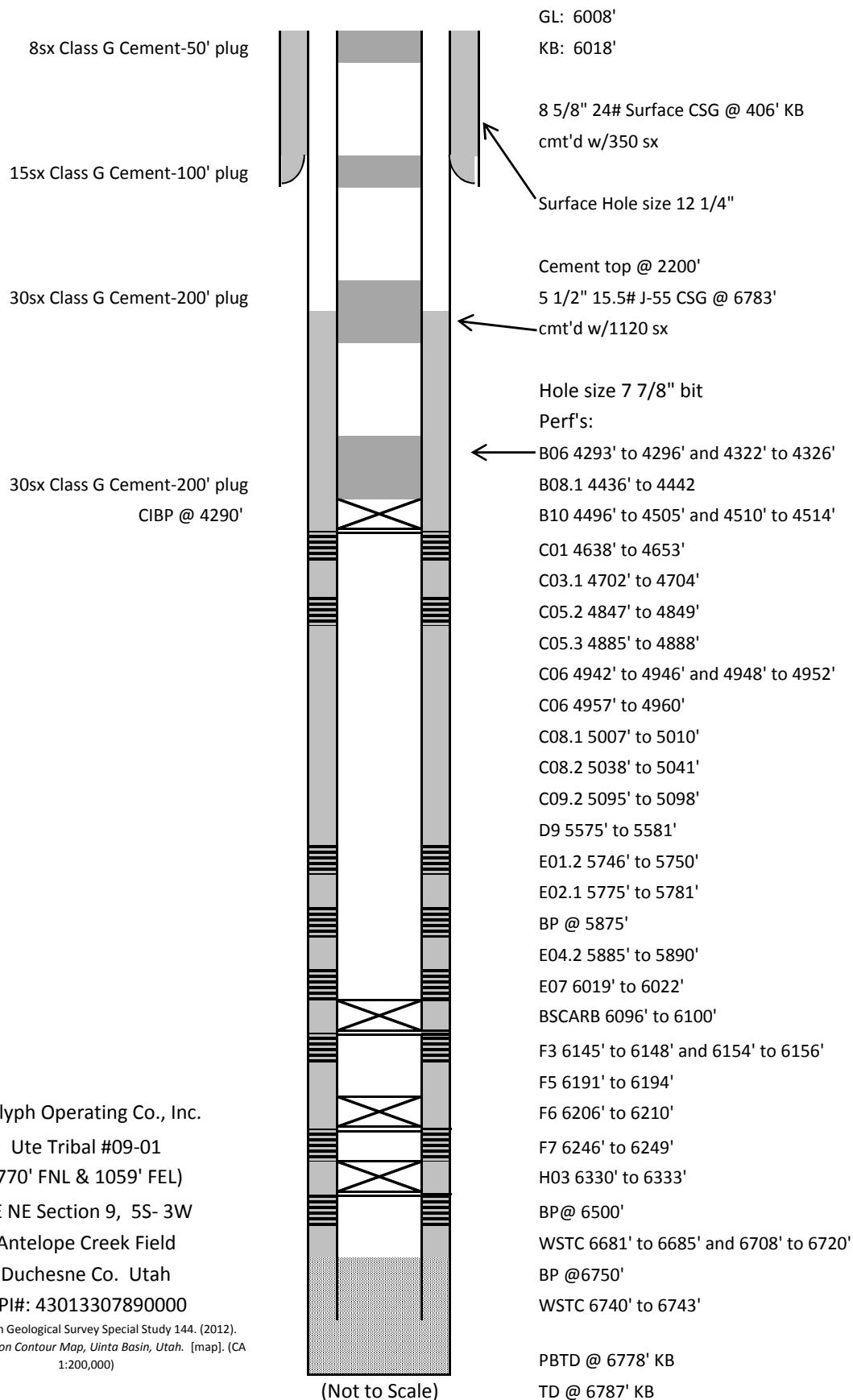
PBTD @ 6778' KB

TD @ 6787' KB

*Plate 1 Utah Geological Survey Special Study 144. (2012).
 BMSW Elevation Contour Map, Uinta Basin, Utah. [map]. (CA
 1:200,000)

(Not to Scale)

Ute Tribal 09-01 Plug and Abandonment



ATTACHMENT NO. 11

P&A PROCEDURE

Plug and Abandonment Procedure

Ute Tribal 09-01

43-013-30789

1. Obtain authorization from regulatory agencies for P&A procedures.
2. Set deadman. Rig up pulling unit. Rig down wellhead. Install BOP. Release packer. Trip out of hole with tubing and packer.
3. RIH Set CIBP @ 4290'.
4. Trip in hole with tubing. Establish pump rate, spot 30sxs Class G cement on top of CIBP. This will be a 200' plug.
5. Raise the tubing to 2200' and set balanced 200' cement plug using 30sxs of Class G cement.
6. Raise the tubing to 406' and set balanced 100' cement plug using 15sxs of Class G cement.
7. Set balanced 50' cement plug (8 sxs of Class G cement) from 50' to surface.
8. Cut off wellhead. Install plate and identification P&A post marker. Weld to casing.
9. File reports with the agencies and reclaim surface locations.

ATTACHMENT NO. 12

MIT PROCEDURE

Mechanical Integrity Test Procedure

Ute Tribal 09-01

43-013-30789

Integrity testing can be accomplished by pressuring up the annulus between the casing and the tubing. The pressure and duration of the test will be as required by the EPA.

Test Procedure Details:

1. Two weeks prior, notify EPA of pending work. Shut well in.
2. Record fluid level with echometer.
3. MIRU Service Unit.
4. POOH laying down rods and pump.
5. ND Wellhead. NU BOPs. POOH laying down 2 7/8" tubing.
6. RU Wireline. Add new perfs: C06 4929' to 4931', D3 5241' to 5243', 5264' to 5268', and 5278' to 5280' .
7. RD Wireline.
8. PU plug and packer and new tubing. RIH and breakdown perfs.
9. POOH. RIH with injection packer to 4203'.
10. Reverse circulate in packer fluid.
11. Set packer and ND BOPs and NU wellhead.
12. Pressure test casing-tubing annulus to 1500psi for 15 minutes.
13. RDMO.
14. Notify EPA of test, wait for approval.
15. Return to injection.

ATTACHMENT NO. 13
SURETY BOND LETTER

**SURETY BOND STATEMENT**

July 27, 2015

Petroglyph currently operates 111 injection wells in Antelope Creek Field under EPA UIC Area Permit UT2736-00000. The existing wells are covered by UIC Bond No. LPM 4138351.

Prior to final permit approval, Petroglyph will add a rider to the existing bond to include this well along with the other wells being submitted to EPA at this time.

Kevin Dickey

V.P., Operations

Petroglyph Energy, Inc.

PETROGLYPH OPERATING COMPANY, INC.